YACHTING

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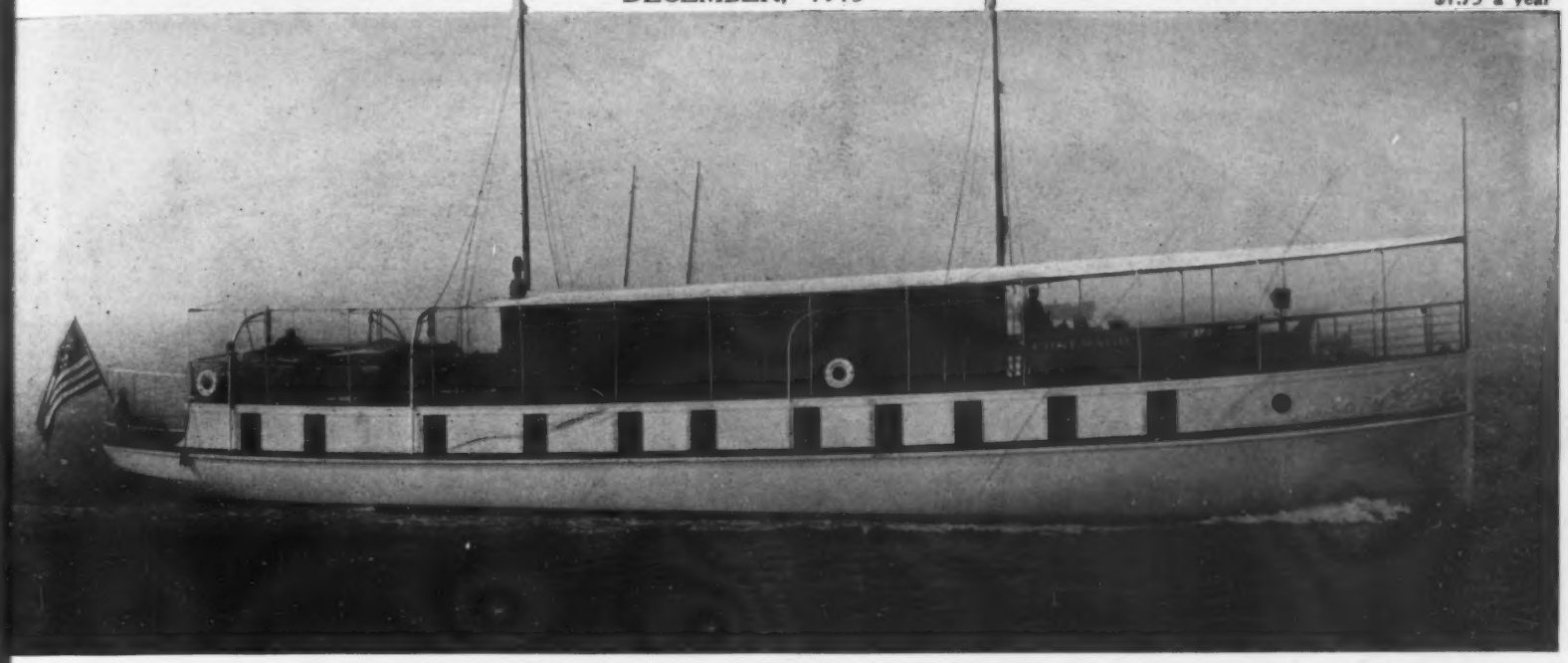


THE CONEWAGO, A 100-FOOT POWER HOUSEBOAT THAT SHOWS THE TREND IN MODERATE-SPEED POWER YACHTS, WHERE COMFORT, LIGHT AND AIR ARE DESIRED WITHOUT SACRIFICING LOOKS OR CRUISING RADIUS. DESIGNED BY GIELOW & ORR

The Recent Development of the Modern Power Yacht

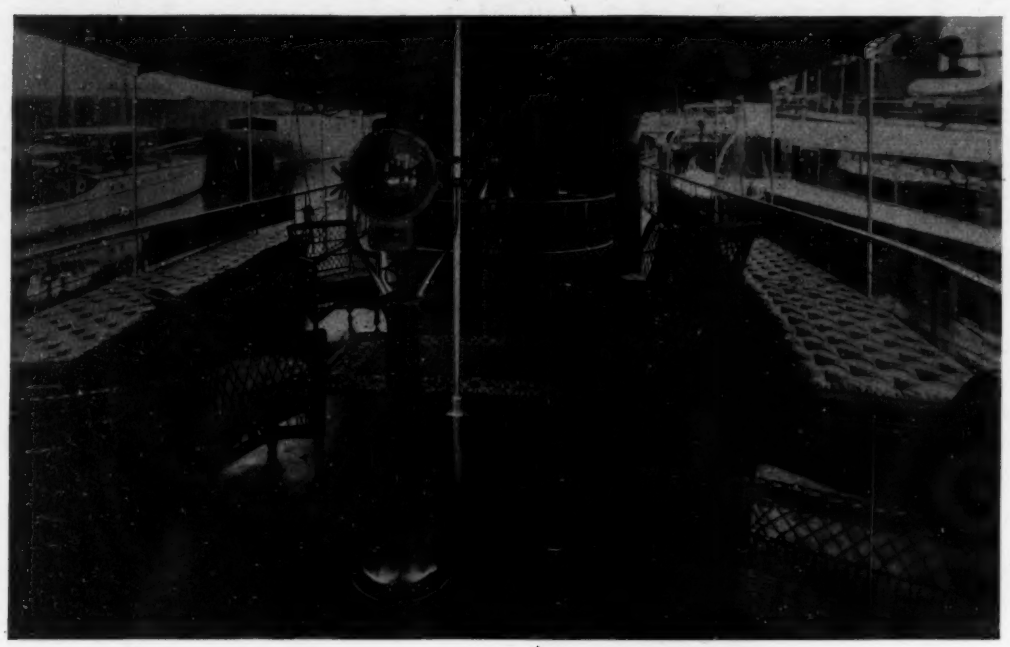
How the Internal Combustion Engine has Now Replaced Steam in Even the Large Yachts, Making for the Economy of Space and Operation. A Marked Tendency Toward Power Houseboats and Express Cruisers. The "Last Word" in Modern Yacht Building

THE unusual era of prosperity that has struck the American shipyards, even such close buyers as Norway now coming to America for ships on account of the impossibility of getting them built at home by reason of the volume of work now on hand there, is not confined alone to the yards building commercial vessels. From nearly every yacht yard on the Atlantic Coast come reports of orders booked for new boats for 1916, many of them of large size—that is, of large size for power yachts. For the accepted type of power for practically all yachts, except very large ocean-going vessels, is now the internal combustion engine. We cannot recall a steam vessel built for yacht purposes under 175 feet in length that has been turned out in the last five years. And whereas the gas engine was not seen in boats over 90 feet or 100 feet long five years ago, it is now going into yachts up to 160 feet in length, and, in one instance, up to 215 feet as auxiliary power.

The reasons for this are pretty well known to those interested in yachts, the principal advantages being a saving of room, thus giving greater accommodations on a given length, cleanliness, ease of operation and economy of crew, which last is a vital consideration, inasmuch as it is the labor charges and concomitant expenses on a yacht which eat into the money. The

THE DECK DINING SALOON OF THE CONEWAGO

THE OWNER'S BEDROOM, WITH BATH ATTACHED, IS A MODEL OF COMFORT



THE FORWARD DECK OF CONEWAGO—COOL, ROOMY, INVITING

tendency in the last two or three years in the largest boats has, however, been to break away from the steam yacht type of powerboat—that is, the fitting of gas engines to the conventional steam yacht hull—and the last two years have seen the more or less disseminated efforts of power yacht designing crystallized into distinct types. The trend seems to be toward the development of the power houseboat for a useful all-round type in place of the usual low-speed powerboat, while those that want to "get there" at a faster rate of speed are going in for the express cruiser type with much higher speed than had been thought possible before without the sacrifice of other qualities.

The former of these two types, thanks to the ingenuity and artistic sense of our naval architects, offers possibilities in the way of pleasing looks and seaworthy qualities which the old houseboats did not possess, while they retain all the roominess, comfort and airiness of a houseboat with a speed equal to or greater than the average slow power cruiser of a few years ago. Besides this they offer exceptional deck room and are in realty what their name implies—a home for the owner and his guests while aboard.

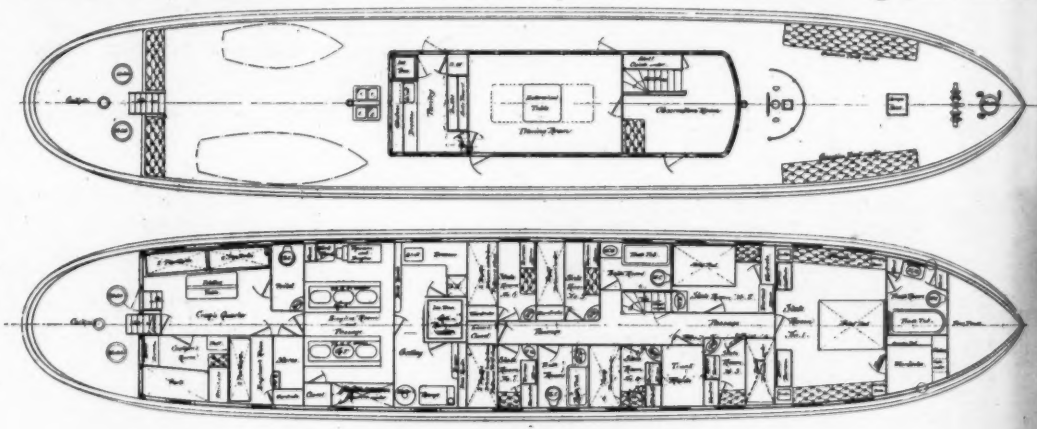
The other class just mentioned has developed largely along two lines, the so-called destroyer type, following the general idea of the high-speed torpedo boat destroyers of the navy and the lightly-built, small displacement type that go over rather than through the water and whose displacement lessens as they lift when at speed, after the principle of the hydroplane.

In the express cruiser type a speed of from 20 to 30 miles an hour is possible, a few boats of the latter speed having already been built, such as Conejo, a 91-footer, with a speed of about 31 miles, described in YACHTING last month; and Marold, a 100-footer, with a speed of about 30 miles and carrying 900 horsepower in three engines. While these speeds are exceptional, from 20 to 25 miles is easily obtainable without sacrifice of cruising accommodations. The fuel cost has not been one that has threatened the growth of this type, and an average consumption of from .8 of a pint to 1 pint of gasolene per horsepower hour at normal cruising speed can be figured on.

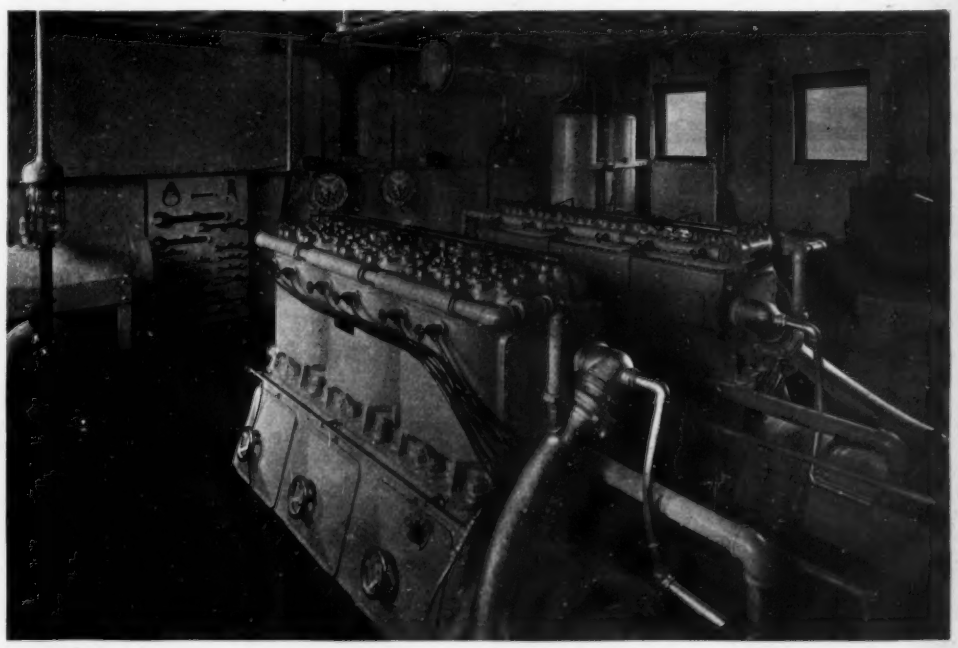
Probably there is no better way of showing how this development is going along, and what are the possibilities of the various types, than by showing the boats themselves and describing one or more of each type that has become popular in the last few years. In the following pages will be found the "last word" in power yacht design and building, with such facts concerning the boats as will be of use to those contemplating building or buying power yachts for next season.

The Power Houseboat Type

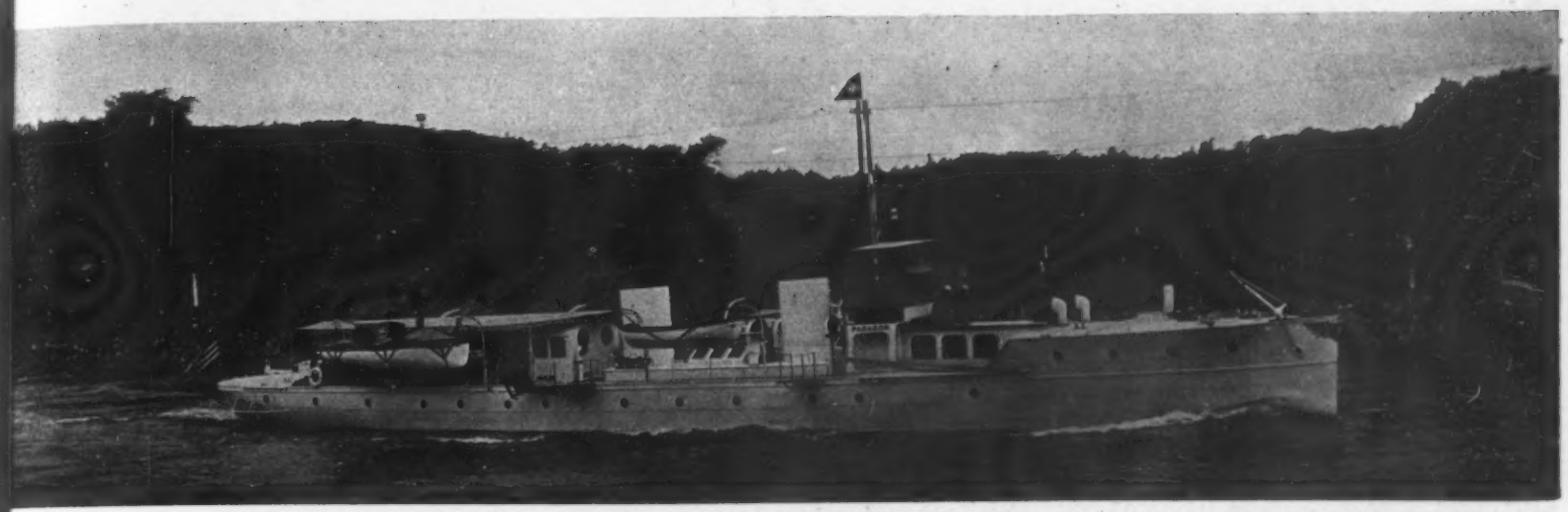
Taking up first the power houseboat, one of the best examples of what this type offers in a boat of moderate size is the Conewago, built from designs by Gielow & Orr for Mr. James D. Cameron. It might be said that



ACCOMMODATION PLAN OF CONEWAGO



THE ENGINE ROOM OF CAPTIVA, A 130-FOOT POWER HOUSEBOAT, SHOWING INSTALLATION OF TWO 200-HORSEPOWER WINTON MOTORS, THAT GIVE HER A SPEED OF 14 MILES



THE DESTROYER TYPE OF EXPRESS POWER CRUISER. PARAGON, WITH 400-HORSEPOWER, MAKES 20 MILES AN HOUR. SHE IS A STEEL VESSEL 120 FEET LONG, AND IS THE LATEST DEVELOPMENT OF THIS PARTICULAR TYPE. PHOTOGRAPH TAKEN IN CAPE COD CANAL

these power houseboats are built in sizes from 45 feet up to 140.

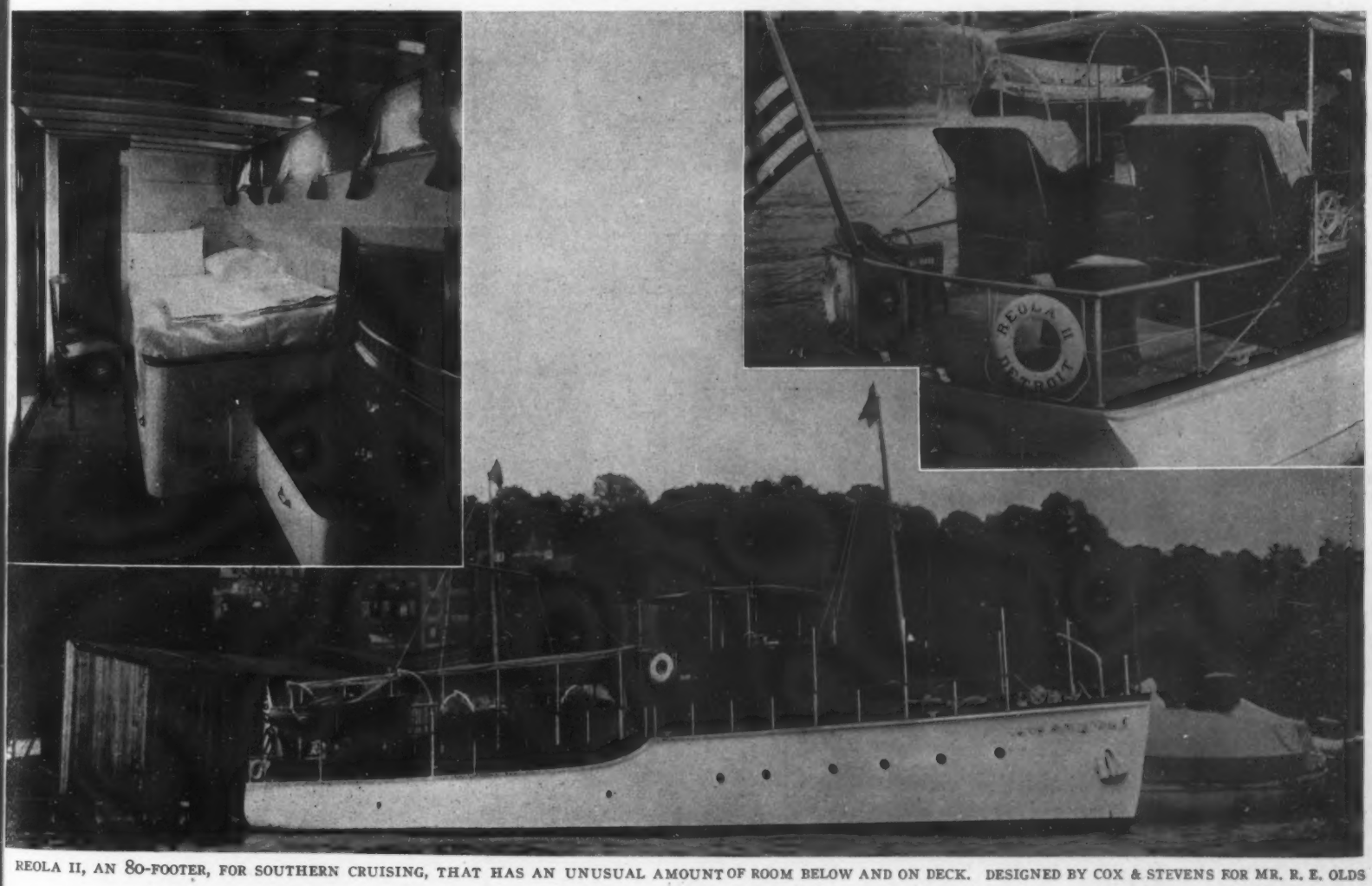
In appearance this craft bears a very close resemblance to a large, beamy motor yacht, the only noticeable difference being the square windows, instead of the usual circular air ports. In other words, she combines the weatherly qualities and speed of the motor boat with the light, ventilation and roominess of a house boat.

She is built of wood and her principal dimensions are: Length over all, 100 feet; length on load waterline, 90 feet 9 inches; beam, under guards, 18 feet; and draft, 3 feet when fully loaded.

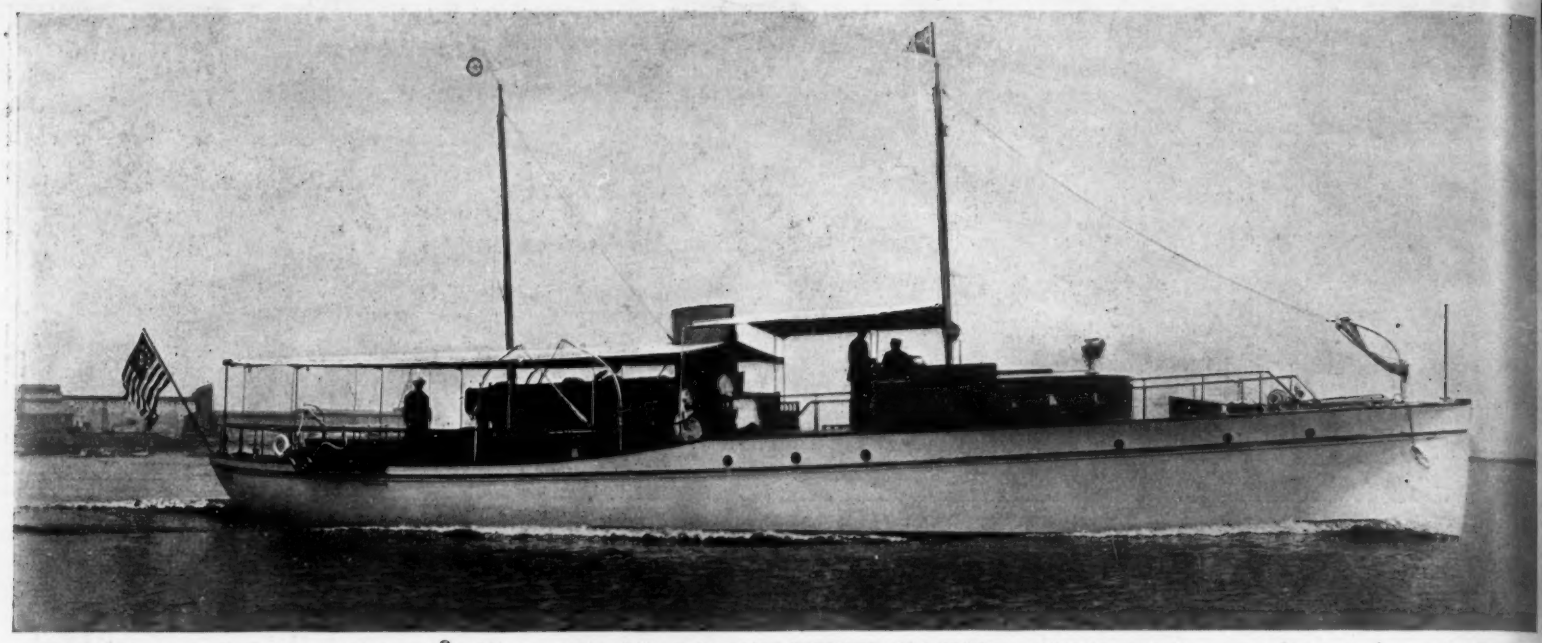
A CORNER OF MAIN SALOON OF PARAGON

Her accommodations consist of the owner's stateroom, 11 feet by 15 feet; six guests' staterooms, two bathrooms and a large trunk and storeroom below the main deck. Aft of these quarters is a large galley, with an ice box, etc. Then comes the engine room, and finally the accommodations for the officers and crew. There is a deck house of mahogany 35 feet in length by 10 feet in width, arranged with an observation and smoking room in the forward end, 11 feet in length; then a dining room 16 feet long, and aft of this a pantry with a dumb-waiter leading to the galley below.

Her propelling machinery consists of a



REOLA II, AN 80-FOOTER, FOR SOUTHERN CRUISING, THAT HAS AN UNUSUAL AMOUNT OF ROOM BELOW AND ON DECK. DESIGNED BY COX & STEVENS FOR MR. R. E. OLDS



SWEETHEART, AN UNUSUALLY HANDSOME 80-FOOTER, WITH GOOD DECK ROOM WITHOUT SACRIFICING ACCOMMODATIONS. DESIGNED BY F. D. LAWLEY FOR MR. EDWARD H. WITTE. WITH A WINTON ENGINE SHE MAKES 16 MILES PER HOUR

pair of six-cylinder Winton engines, 6½-inch bore by 9-inch stroke, capable of driving her at a maximum speed of 11 knots and at a normal cruising speed of 10 knots per hour. The gasolene tanks have a capacity sufficient to give her a cruising radius of 1,200 miles, and she is equipped with large fresh-water tanks and good storage capacity for provisions, so that she has to visit supply depots only at long intervals.

A Boat for Southern Cruising

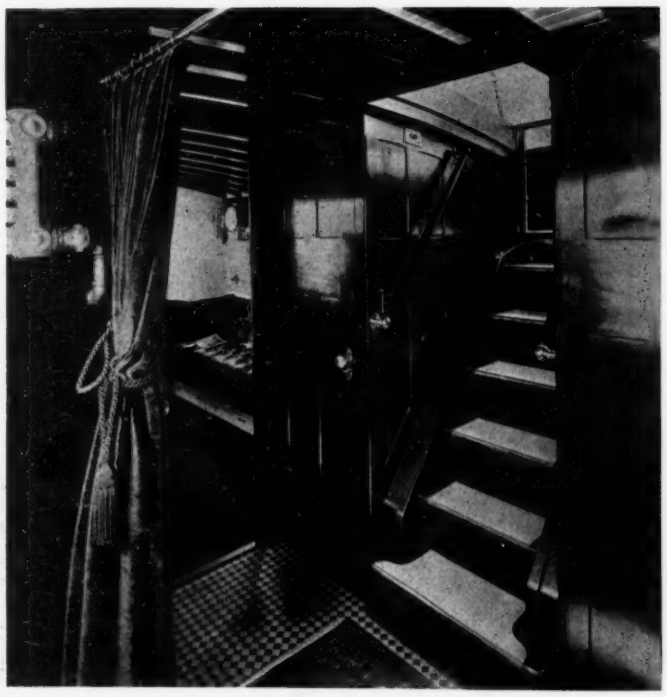
A somewhat different type is the Reola II, a boat built for coastwise cruising and use in Florida during the winters and offering an unusual amount of room and comfort. She is 80 feet long over all, 16 feet beam, 3 feet draft, and is powered with two Sterling engines which give her a speed of

MINERVA, A 14-MILE 80-FOOTER

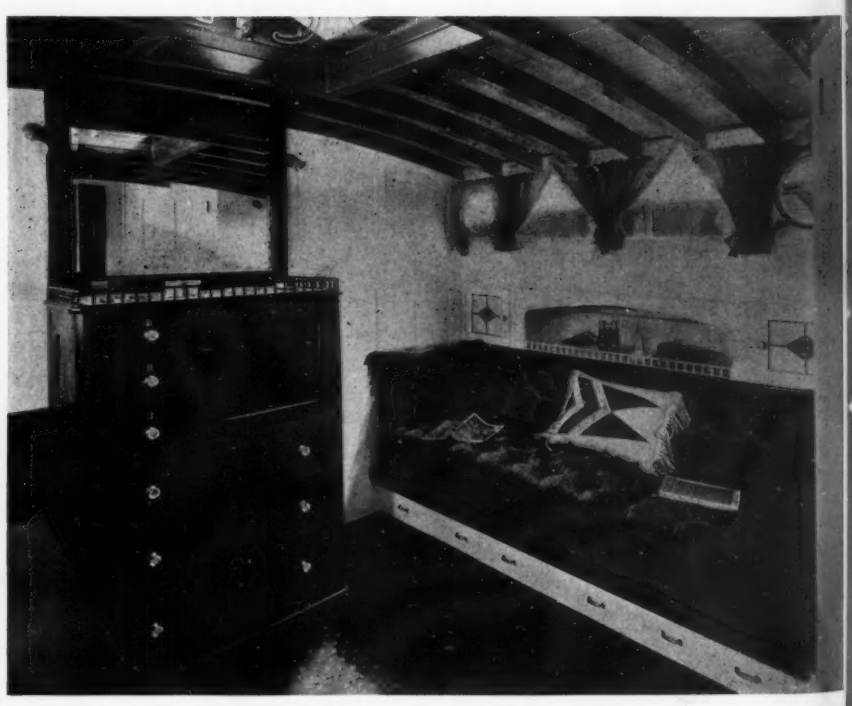
12 miles an hour. She has a deckhouse in which is a dining-room and galley, while the owner's quarters are laid out with a saloon, four staterooms and two bath rooms, the crew's quarters being forward. She was designed by Cox & Stevens and built by the New York Yacht, Launch & Engine Company. Experience in the South having demonstrated the necessity of large windows for light and ventilation the architects, by using the trunk cabin type have provided for large windows, yet have practically conserved the entire width of the vessel for deck space.

Another Type of Coastwise Cruiser

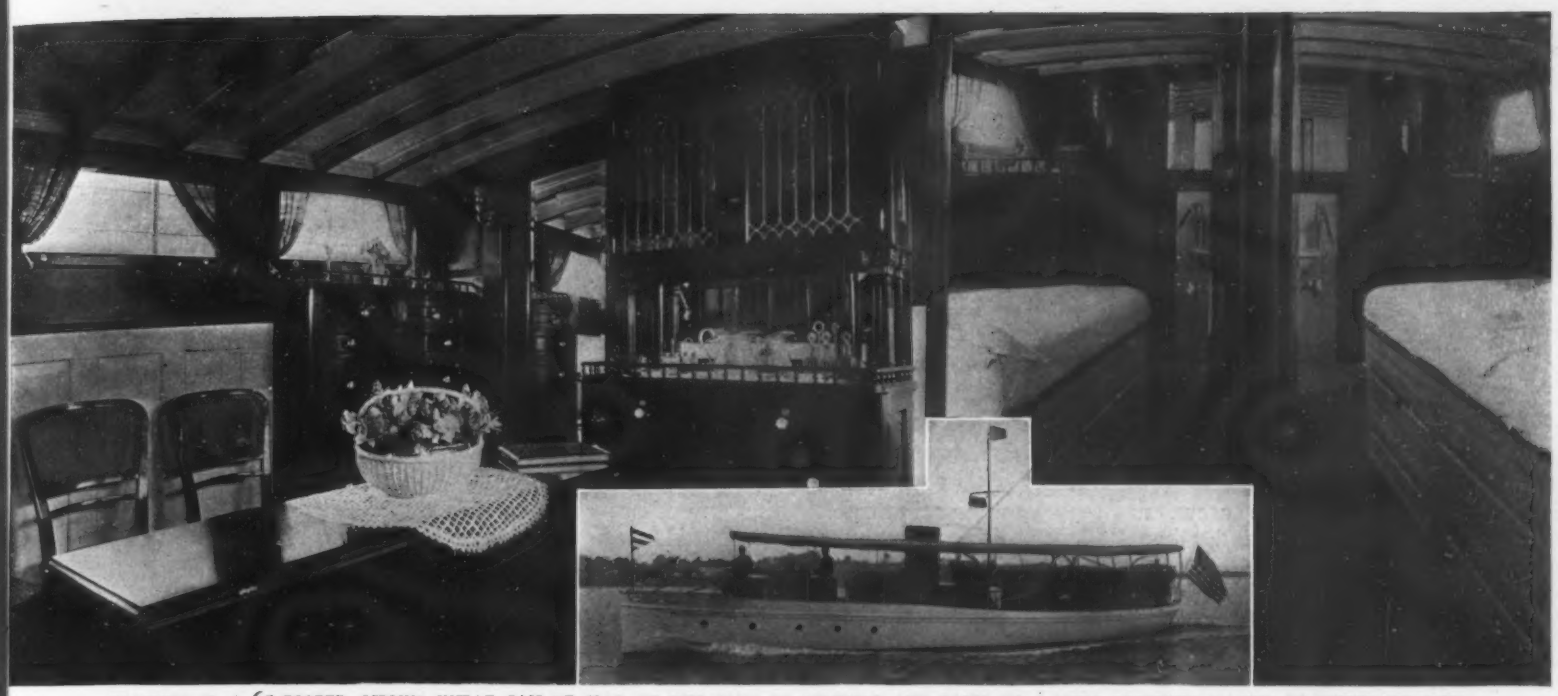
Another type of cruiser for use on the Atlantic Coast or Great Lakes that offers an unusual amount of comfort and, at the



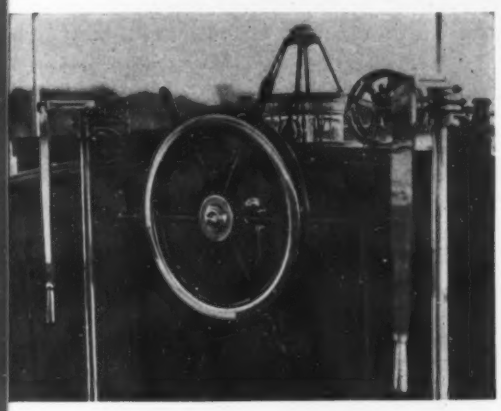
COMPANIONWAY AND VESTIBULE OF MINERVA



THE ATTRACTIVE COMBINATION SALOON-STATEROOM OF MINERVA



FRANCES II, A 65-FOOTER, SHOWS WHAT CAN BE HAD IN THE WAY OF COMFORT AND ROOM IN A WELL-DESIGNED YACHT OF MODERATE SIZE



ONE-MAN CONTROL ON A TWIN-SCREW 80-FOOTER

same time, good speed, is the Minerva, an 80-footer, designed and built by the Luders Marine Construction Company, and powered with two Sterling engines that give her a speed of 14 miles per hour. Her accommodations consist of a pleasant dining saloon in the raised deckhouse forward and a lounging room or vestibule and two state rooms aft, with bath room and plenty of locker space. She is handsomely finished below and on deck with mahogany.

Comfort Not Dependent Upon Size

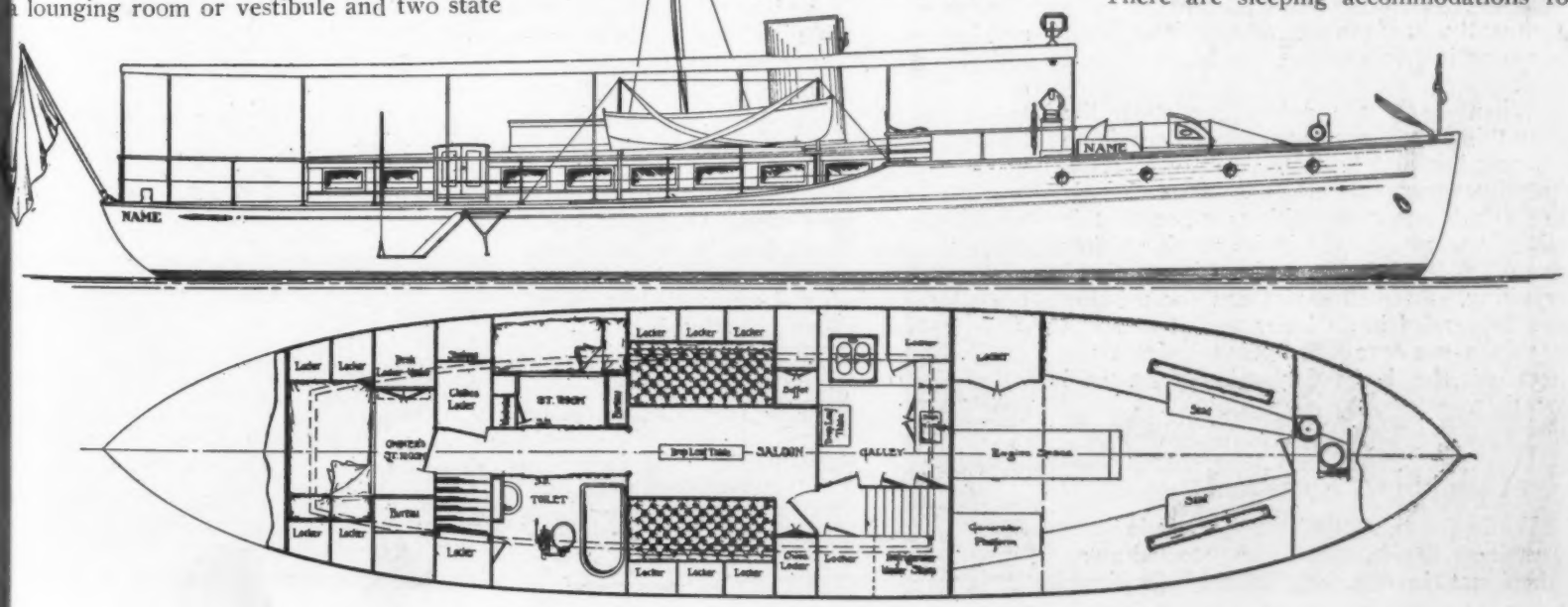
Frances II is another fine example of the modern coastwise cruiser. She is 65 feet long by 14 feet beam, and her accommodations consist of a main saloon with Pullman berths, two staterooms, finished in mahogany and white, bath room and large galley. With a 65 horsepower Twentieth Century motor, she has a speed of 13 miles per hour. She is owned by E. N. Jennings, of Bridgeport, and was designed and built by the New York Yacht, Launch & Engine Company.

A Comfortable and Seaworthy Yet Economical Type

Getting down to a somewhat smaller yacht, the possibilities of the modern 65-footer are particularly well exemplified in the plans of a new power cruiser designed and to be built for a New York yachtsman by F. S. Nock. Her length over all is 65 feet, breadth extreme 14 feet, draught 4 feet, and the least headroom throughout is 6 feet 6 inches.

MINERVA'S FORWARD DECK

There are sleeping accommodations for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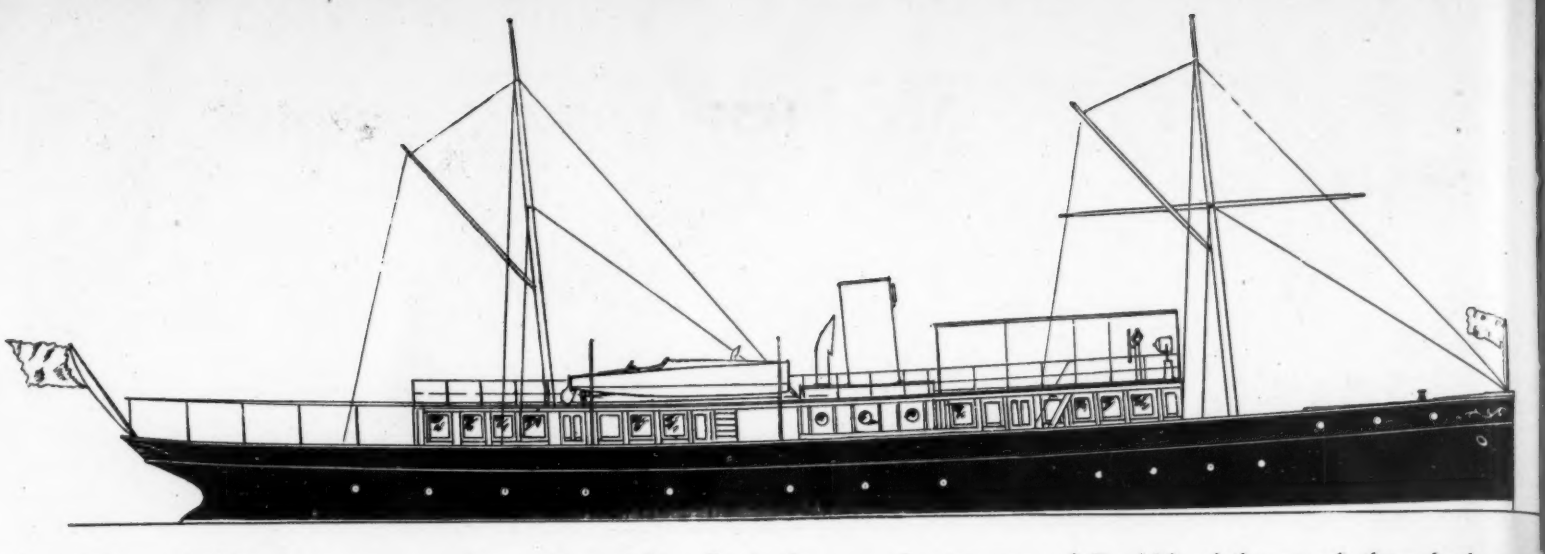


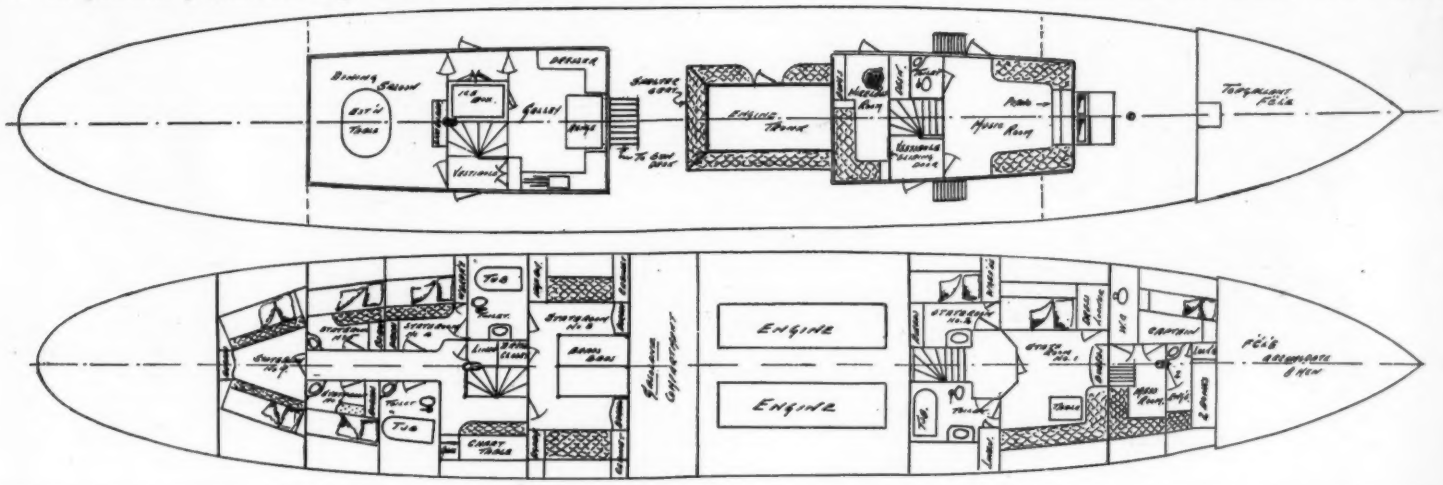
seven persons besides the crew, as the berths in the saloon extend and, when made up, will sleep four persons.

The power plant is a 6-cylinder engine, developing about 75 horsepower. While the construction is somewhat heavy for a cruiser of this type, she is capable of being out in almost any weather.

What the Large Motor Yacht Offers

As to the possibility that the larger-sized motor yachts offer in the way of accommodation, the plans of a proposed 124-footer, by the Luders Marine Construction Company, is a good example. With a flush deck extending the full length of the vessel and forward and after deckhouses that are as large as on the average 175-foot steam yacht, she has a fine run of deck, while below, as the plans will show, she has exceptionally roomy accommodations. These consist of seven state rooms, two of them being the full width of the vessel, three bath rooms and a large vestibule with a transom seat.

She is designed to be equipped with two engines and a speed of from 12 to 18 miles an hour can be had easily, depending on the amount of power installed. A boat such as this has a gasolene capacity sufficient for a long cruise, and she could probably go the entire length of the Atlantic Coast of the United States on one filling. Her beam is 20 feet and her draft 7 feet 6 inches.



Priming in Cold Weather

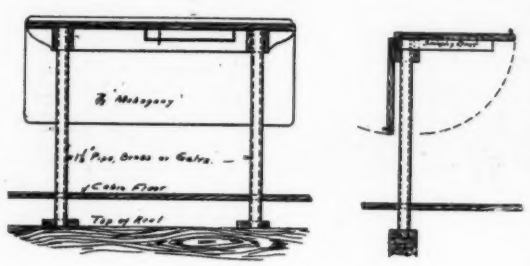
In using an engine in cold weather it is frequently hard to start, especially if it has been idle long enough to become stone cold.

When an engine refuses to start, the first thing the operator usually does is to try priming, and if it still refuses to start, he primes some more. In cold weather, if the priming is done with gasolene that is slightly warm, it will ignite much quicker and often result in the saving of much hard cranking. A small squirt can for priming can be carried in an inner pocket and will keep the gasolene warm enough from the heat of the body for priming in cold weather.

A Simple Drop-Leaf Table

While for the little boat a small folding, four-legged table, that can be stowed away when not in use, is probably the best, there is no question that a standing folding table is a great convenience for boats of larger size, the chief difficulty being to get one that is absolutely rigid and solid.

A very simple and common method of making such a table is shown in the accompanying sketch. It consists of two uprights of 1½-inch brass or galvanized pipe, brass being the best, as it will not rust, fitting into steps or sockets fastened to the keel. These uprights go down through round holes cut in the cabin floor just large enough for them to fit in. On top of these pipes are two hinged drop leaves, as shown in the sketch, made to any desired size from ¾-inch to ⅞-inch mahogany. When folded down, this leaves a top only 6 inches wide, which is set over the pipes and which will not be in the way in any boat with a cabin floor 3 feet in width or over. Such a table can, of course, be taken down and stowed away, but it is well to leave it up when it is in constant use.



Some Wiring Hints

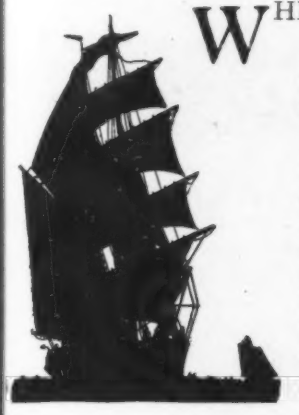
The ignition wiring aboard the boat requires special attention, and the insulation must be protected from heat and oil as well as from water. Oil will soak through the average insulation very quickly. Another thing—get *good* wire. Remember that *any old wire* will *not* do to repair a broken circuit except temporarily in an emergency. For the primary circuit the best grade of stranded low tension wire must be used. For the secondary circuit an equally high grade of stranded high tension wire must be obtained. Don't try to use one of these wires for the other, and remember that ordinary electric light wire is a source of constant trouble. Always see that connections are so arranged that they cannot jar loose with the vibration of the engine, and keep terminal screws down tight.

My First Voyage

The Narrative of a Voyage to the West Indies and South America in the Forecastle of the Schooner Hattie Weston, Made by a New York Boy who Shipped as Ordinary Seaman

PART II. Shaking Down Into Sea Life

By "A. B."



WHEN the call came for the watch I pulled myself together, struggled to my feet and got into a suit of "Cape Ann" oilskins, or slickers, the smell of the oil in them nauseating me again. As I followed the rest of the watch up the companion ladder I felt weak and uncertain on my legs, but hoped that the fresh air would brace me up. It was not yet daylight when we reached the deck, but dark as it was, I could see that there was a wild sea running, the white crests rearing up against the black sky and rolling over in long, jagged ridges, white and luminous with phosphorescence that seemed as if they must tumble upon our decks and sweep us all off.

It was blowing a full gale out of the nor'-west, and the Hattie Weston was driving off before it under foresail and forestaysail, while the air was still full of light, driving snow and it was bitterly cold. That first hour and a half to daylight seemed an eternity, but with Charley, who was supposed to be on lookout, we crouched in the lee of the galley, between it and the foremast, to get some shelter from the wind and snow, and the time passed somehow. The "harness cask" where the salt beef is kept pickling, was lashed on deck right alongside of us, and the brine, sloshing around with the motion of the schooner, sent up a sickening odor; but I guess there wasn't anything more in me that could come up, for I didn't get sick. In fact, I felt better, except that I was cold, and there was no work that I could do to keep me warm. At 5 o'clock the cook came up and started the galley fire, and the smoke from the stovepipe soon drove us out on to the deck load, where we had no protection of any kind. But Charley said we'd soon have some coffee now, and the thought seemed to cheer him, though it didn't mean much to me, as I had visions of the black stuff we'd had for dinner the day before. But when the "Doctor" carried a steaming pot aft half an hour later for the Captain, who was walking the weather alleyway in short, quick strides, and then called us to the galley door for ours, I swallowed mine, and the heat of it inside me set me up remarkably.

At six Charley went aft to relieve the wheel, and "Bill" Cox came forward for his coffee. He was sweating freely, in spite of the cold.

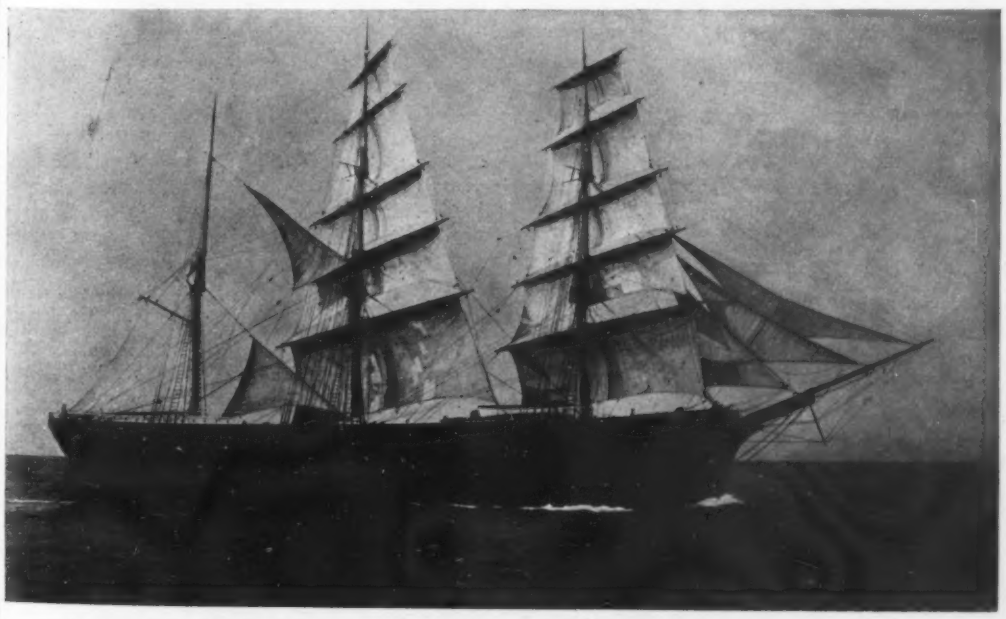
"De ole gal keeps a man busy in dis followin' sea," he said to me, "but she sure am travelin.' Doin' ten knot, I heard the Ole Man say to de mate, as he went below. If he can only keep on a runnin' off, we'll soon be in warm weather an' out of dis bloody snow." The cockney, which he had picked up from the English colony where he had been raised, mixed strangely with his native negro dialect.

There was no washing down decks that morning, as it was blowing too hard, and every now and then we'd get the top of a sea over the quarter or taffrail aft that would flood the deck, but we were not pooped fairly once, though I could see the Old Man was anxious, as the sea was now very high. At seven-thirty a call came from aft to try the pumps. This startled me, and I remember wondering if the vessel was leaking and if it was bad. We inserted the iron brake handle in one of the pumps by the mainmast, inside of the fife rail, and the two of us soon had a good stream coming up and flowing down the already wet deck and through the scuppers. Though it was hard work, the exercise warmed me, and in fifteen minutes we got air and suds.

"There she sucks; there ain't much water in this packet," muttered Bill, more to himself than to me. Every wooden ship will make more or less water when driven, especially in a heavy sea, and it is customary to pump them once each watch, just before eight bells, when the watch is changed. This prevents the water getting high enough to wet the cargo. When a ship is leaking badly she is pumped oftener, frequently once every hour when she is being strained in a seaway. The Weston was a tight vessel and leaked very little, except on one occasion, when she gave us all a bad scare, as will be told later.

After pumping her, the cook called me to the galley for the mess kid. I had hard work getting it and the coffee pot below without an accident, as I had not yet found my sea legs, and was unsteady on my pins, for the schooner had a nasty, corkscrew motion as she alternately topped and tobogganed down the racing seas, and there was nothing I could hang on by. I got to the companionway, however, without a fall, and passed the breakfast down to the men below, the port watch having turned out at seven bells, in anticipation. The kid contained fried strips of salt beef, boiled potatoes and bread, and I managed to stow away some of it and to drink another mug of black coffee, which set me up, for the time being at least.

We had no sooner finished than Mr. Guptill, the mate, was after us, and it was lower away the foresail and turn in two reefs before our watch went below, for the sky looked very threatening and the wind was evidently increasing. I had never imagined how hard it would be handling heavy canvas in a gale, and, though the sail was a comparatively small one, it took us half an



"WE PASSED A BARK HEADED NOR'WEST, FLYING LIGHT AND WITH EVERYTHING SET TO A FAVORING BREEZE

hour to get it reefed and the throat and peak set up again.

All that day we drove off before it, making a fine run off the coast, but it was plain that the little vessel was being crowded dangerously, and when watches were changed at 4 P. M. I heard the men talking about its being time to heave to.

"He's got to do it before night. She nearly pulled the arms out o' me that last trick," said Gus. "No vessel can stand this."

"De Ole Man'll punish her before he quits," spoke up "Bill," who had been on the Weston before. "He's some hand for carryin' on, dis Ole Man is, and he ain't satisfied unless he springs a mast each voyage."

Our noon position by dead reckoning put us in Lat. 37° 21′ N. and Long. 72° 12′ W., or 203 miles from Scotland Lightship, from which we had taken our departure at 2 P. M. the previous day. Not bad for a small, deeply loaded schooner!

Just before the call for supper I was standing on the deck load close to the mainmast watching the darkness descend on the wild, blue-black sea, for we had entered the Gulf Stream, and the water had changed from a light green to the dark, deep color of that great ocean river, when a sharp cry came from aft: "Hold on, all!" and, looking over my shoulder as I made a grab for the fife rail, I saw an immense wave curling up behind us and towering high over our stern, with a broken crest some seven feet deep rolling along its top. I could see the man at the wheel hunch himself to receive the shock and stick his knees through the spokes of the wheel, while the "old man" jumped for the main rigging. Our stern lifted as if it would never stop going up, but, even so, it was not fast enough; the sea hit our counter before the schooner had lifted over it, the crest poured in over the taffrail, filling the deck rail high and swept forward until it hit the deck load, tearing some of the top planks from that and sweeping them overboard as one of the rope lashings parted. One of the after companion doors to the cabin was, unfortunately, open, and the sea swept below, flooding the Captain's quarters, much to the wrath of that individual and the amusement of the men. Its force had been spent before the sea reached me, and, as the schooner shook herself free and recovered, I looked aft, expecting to see the man at the wheel gone; but he was still there, throwing the wheel over like mad to stop her sheer and straighten her out once more. That was enough for the Old Man, and he called to the mate to get the main trysail out and heave her to.

We set the trysail, a small, triangular sail made of the heaviest canvas, unshackling the throat halyard block from the gaff and putting the shackle pin through the thimble in the head of the sail and hoisting away. Then we stowed the foresail, and, watching for a "smooth," the helm was put hard down, and we rounded to until the vessel's head lay within about six points of the wind. With the staysail sheet hauled down flat, the wheel was put up a trifle until she balanced and a becket was put on it to hold it. She now took the seas just forward of the beam, and, her way being killed, she rode easily and slid off to leeward perhaps two knots an hour, according to the reckoning of the men forward. She was lively, though, and our pot of tea and the mess pan were sliding all over the forecastle at supper time. It is needless to say that my appetite was not very hearty, though the men urged me to "stow something inside me to be sick on."

We were hove to all night, with a regular Gulf Stream sea running, and it wasn't until daylight, when the wind had moderated considerably, that the Old Man concluded it was safe to put her on her course again, and the staysail was drawn away, a double-reefed foresail set, the helm put up, and the Hattie Weston was headed off before it once more.

When I came on deck for the forenoon watch the next morning a great change had taken place. The wind had moderated to a strong breeze, the sea had gone down considerably and it was warm enough to shed our heavy jackets and oilskins. "No more snow this winter. It'll be peelin' off until we reach the South American coast," said Charley, as he hung his oilers up in the fore rigging to dry. It was a good day for drying, and we had all the bedding up from the forecastle and spread on the windlass to sun. The forecastle was a wet hole in bad weather, especially in a head sea, and under those conditions the floor was constantly wet and slippery and every mattress seemed to hold as much water as a sponge.

The mate set us to work, the sailors to making bag-a-wrinkle for chafing gear to replace that worn through, while I was given a pot of putty and white lead and set to paying the seams of the cabin-house where it had leaked during the bad weather. The Old Man was much more particular about his comfort than ours. We had now our first real opportunity to size up the mate and see what kind of a man we had over us, as, outside of handling the ship, there had been no opportunity for any work or for any driving of the men. He was a good sailor, as was shown by the way he handled sail, and whenever he took the wheel, as he did when all hands were reefing—we were only a small crew—I had heard the sailors comment favorably on his steering. It makes a big difference at such a time how a vessel is handled and whether she is eased through it or sailed hard with the seas sweeping her.

Mr. Guptill was an oldish man, past his prime, with hair and beard turning grey, but lively and keen. He had been master in American sailing vessels, but had lost his last command, a full-rigged brig, in the Mediterranean a few years back, and had been going mate ever since. Most men in this position take their demotion hard, but not so Mr. Guptill. He liked the sea, wa not content to stay ashore, and was neve above his position; nor did he criticise th captain, as there is a strong temptation to d in such a case. He loved a vessel, wante the one he was on to be in A1 shape, an during that voyage we went over every pa of the Hattie Weston, scraping, painting oiling spars, setting up rigging, overhaulin boats, and even chipping iron rust. He allowed no sojering, was after us all th time, yet never drove us, and seldom ha any trouble with the men—that is, if the did the best they could.

By the middle of the afternoon we ha the topsails set with the wind still in th same quarter, and during the first dog watc I was called aft to take my first trick at th wheel, relieving the man who had it to d some sailorizing work I could not yet do.

"S. S. E. ½ E." the course was given m as I grabbed the spokes for the first time and the man I had relieved rolled forwar by the lee alleyway.

"S. S. E. ½ E.," I replied, swelling with pride at my responsibility. But I soo found it was very different steering a larg vessel from a small catboat. First, there was no "feel" to the helm; then we had a bi screw gear, and it took several full turns of the wheel to get it over, so that she re sponded to her rudder very slowly and wa hard to catch when she started swinging Besides which, we still had a following sea.

The captain was walking back and fort across the quarter deck in front of me and I noticed that he would glance at the compas each time he passed the binnacle. This mad me nervous, especially as I had hard work keeping her within a point each way, but beyond an occasional "keep her steady," he let me alone, probably because I was hitting a fair average. He finally went below, an the mate, who seldom turned in during th dog watches, came aft and stood alongsid of me for some time.

"You want to watch her sharp and mee her as she starts to swing," he said kindly "Don't keep working your wheel, whic only keeps her swinging, but watch he head, and the second she falls off or come up give her a little helm and meet her You'll soon get the trick. You must 'av sailed before," he went on, encouragingly.

"Only in a Cape Cod cat," I answered.

Later in the voyage he taught me how t ease her over a head sea by letting her hea fall off a trifle just before she met a sea how to keep the luff of the mainsail jus a-shiver on "full and by," and many othe tricks of helmsmanship. He took quite a fancy to me, and on the voyage home, whe I was in his watch, he told me during man of the long, calm night watches of his lon life at sea in all classes of vessels and in al parts of the world. We became as goo friends as the difference in our position would permit, and I liked him thoroughly in spite of the fact that the men called hi an "old fuss." He wanted things don

right, and right was generally his way—that was all the trouble.

We were not to get off the coast too easily, however, or were we let to forget that it was still March. The sun set in a heavy bank of clouds that night, and in the middle watch we were roused out to turn two reefs in the mainsail. It was the first time I had to answer to a call for "all hands." The watch on deck had the topsails clewed up as we turned out, but they were whipping in the hard squall in a way to tear them to pieces, and with an awful slatting that made it hard to hear any command that was given. It was pitch black on deck, and we had to feel for everything, finding the lifts, throat and peak jigs and halyards by instinct, and woe betide the man who let a clewline or topsail halyard go by mistake! We got the main boom aft, reef cringle hauled out, earring passed, and hoisted away again to the weird, high-pitched accompaniment of

"Sally Brown, she's a young mulatto,
Way-ay-y, roll and go;
She drinks rum and chaws terback-er;
I'll spend my money on Sally Brown."

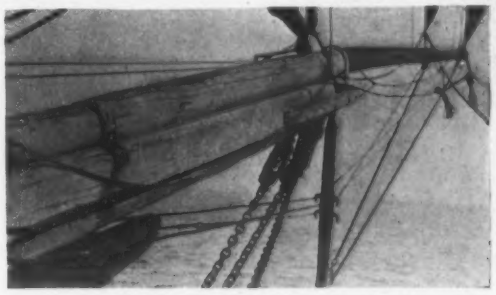
It's wonderful how much heart a rousing chanty puts into one under such conditions, and how much more weight is put onto the halyards.

By the time we had the topsails tied up and everything coiled down snug there were only 15 minutes left of our watch below, but the men took it and had a "pipeful" before eight bells. The "asthma cure" they filled their pipes with smoked me out, however, and I was on deck again when our call came.

The blow petered out the next forenoon, and I was sent up to loose the main topsail. It was the first time I had been aloft. Jumping into the weather rigging, I was half way up before I realized that this was very different from going aloft in the harbor. There was considerable roll to the vessel, and one minute I was being dragged through the air in the arc of an ever-widening circle, clinging desperately to the shrouds to keep them from getting away from me, and then, when I thought she would never stop rolling down, we'd slow up, and the same rigging would be *pushing* me back until I was climbing up a perpendicular rope ladder. When I reached the crosstrees it took one arm hooked around the topmast shrouds to hang on by as I cast the gasket off and tried to make it up in the way one of the sailors had shown me the day before. Then I had to climb down on the gaff to get the topsail sheet and hook on, but finally I had things straightened out so that I could yell down "Hoist away!" I had hardly gotten to the deck again before the mate was after me with:

"Here, you young longshoreman, lay aloft there and make that gasket up *right* and stop it to the topmast shroud—do you hear?"

I looked aloft and saw the long gasket streaming out in the wind, like a homeward-



THE RIGGING ON OUR "NOSE POLE"

bound pennant, and, shamefacedly, I climbed up again, with a strand of seizing stuff, and made it up all over again.

We had had a fine run off, averaging nearly 200 miles a day, in spite of being hove to for ten hours, and our noon sight this day, which was Sunday, put us in Lat. 32° 56′ N. and Longitude 68° 02′ W., or W.N.W. of Bermuda.

After washing down in the morning watch and cleaning up decks after breakfast, we sweat up on the halyards all 'round, taking a pull at everything to take up the stretch, and then had the time to ourselves except for handling sails and steering. The men got a half bucket of fresh water apiece from the cook (we were not on an allowance, as on a deep-water ship, but we weren't given enough for washing except on Sundays), and had a good wash up and a shave. Swenson had no shaving brush, but ingenuity is a large part of a sailor's make-up, and he took an inch diameter rope, cut off about five inches of it, put a whipping in the middle, and with the strands of one end unlaid and opened up he made a good substitute, though it must have been a little stiff on the face.

It was the first chance we had really had of getting acquainted forward, and we made the most of it. The men were all good-natured, easygoing sailormen, better than the usual riffraff of the sea, except Peter Swenson, who was morose and sulky and wouldn't say anything about his past life. He was willing enough, and no one had to do his work for him, but he had evidently had a hard experience ashore or afloat recently, and it preyed on his mind. "Bill" Cox, the mulatto, had a tendency to lord it over the rest of us, with something of the forecastle bully in his manner, but it didn't show up much in those early days of the voyage, though it got him into trouble later.

THE HIGH, STEEP GULF STREAM SEAS

He was good-natured, however, and had a fine voice, so we had music forward frequently.

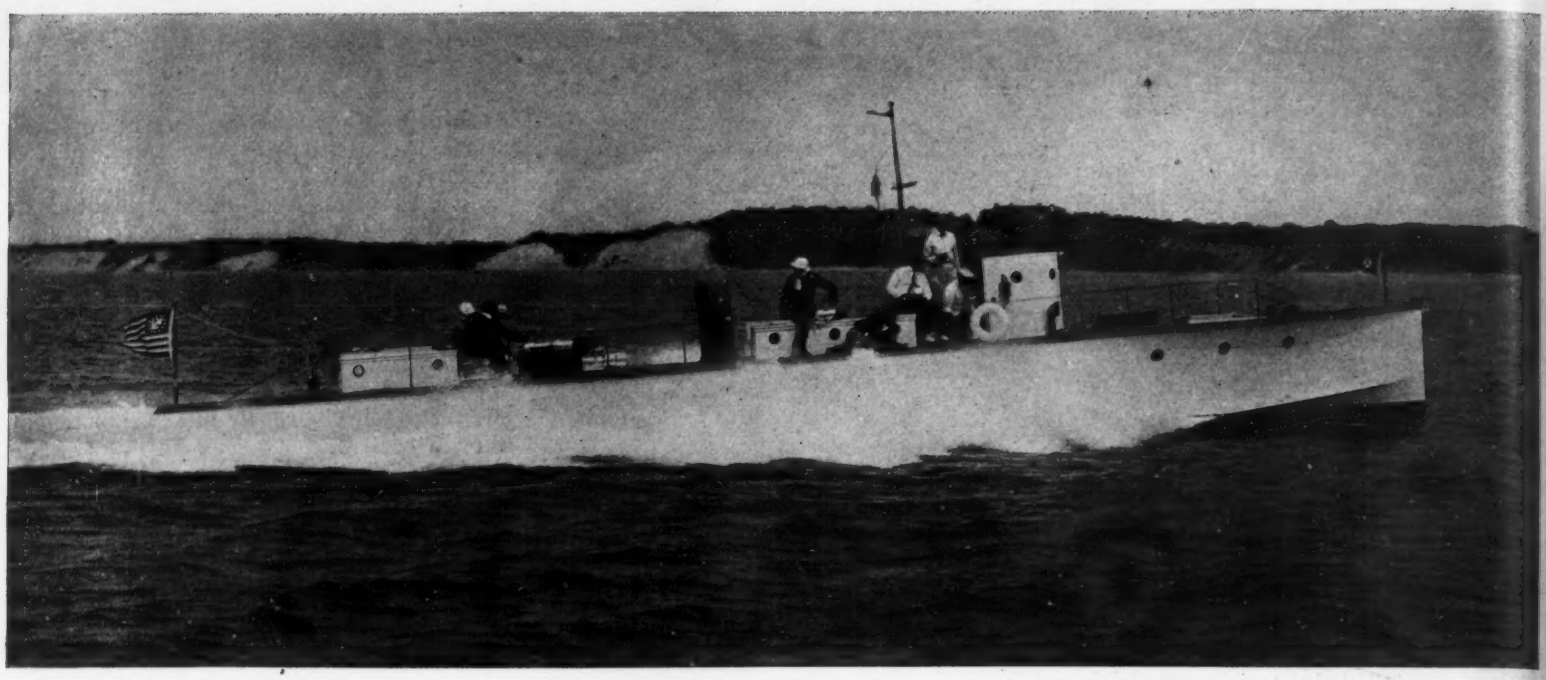
In the second dog watch that night Charley brought out from the depths of his dunnage bag a battered accordion, which had evidently made many voyages in the forecastle of deep-water ships, and, gathered around the windlass forward, we had a regular concert for an hour, "Bill" doing most of the singing and Charley working his accordion vigorously in accompaniment, though each of the men contributed some ditty to the performance. The general taste seemed to run to the mournful, such as "The Ship that Never Returned," and "Around Cape Horn," that were very suggestive as to what might happen on a long voyage. The captain came up and, without giving a sign that he heard, took it in from the weather alleyway, where he walked and smoked his pipe, while the mate stood at the main fife rail, apparently looking the coils over, but evidently enjoying the music. This was the true sailor's life, I thought to myself, such as I had read about and pictured in my mind, and now I was really living it, making one of the group. I was a real sailor at last. The discomforts, the hardships, the rough fare, were all forgotten, and this was the *real thing*—for I was only 17, and what boy of that age wouldn't have succumbed to the glamor of it all?

We struck the first of the N.E. Trades in Lat. 25° 30′ N. and Long. 65′ W., or about 400 miles south of Bermuda. They were blowing light at first and were almost east, so that we were trimmed in fairly close. The monotony of sea and sky was broken on the day we picked up the Trades by our sighting two barks, one headed to the northeast and evidently bound from the West Indies to Europe, and the other going nor'-west for the coast, flying light, with a favoring wind and everything set. We passed close enough to see the man at the wheel in a red shirt and to make out her crew on the forecastle head watching us, but could not read her name.

Our progress was slow until the Trades began to freshen in latitude 23° N. Here is the entry in my log book, a journal which I kept religiously. The mate supplied me with the position:

"Sunday, April 1st.—Lat. noon 23° 07′ N.; Long. 63° 39′ W. This is Easter Sunday, and a nicer day we could not have. I suppose everyone is rigged out in his best back home and going to church. We crossed the Tropic of Cancer early last evening and have now really entered the tropics. There was very little wind last night or this morning, but during the afternoon a good breeze sprang up, and it looks now as if it might last. The Trades have been very light the last four days and we have made poor day's runs while the sea has been smooth. The constellation of the Southern Cross came into view last night, low on the horizon."

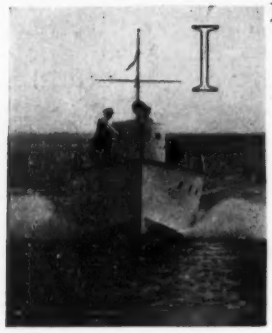
(To be Continued)



LOW, LEAN CRAFT THAT CAN SAIL CIRCLES AROUND THE FASTEST SUBMARINE, THEY MAKE A POOR TARGET WHEN PAINTED A BATTLESHIP GRAY AND ARE "OPENED UP"

Speedy Motor Boats for Fighting Submarines

Thirty-Mile-an-Hour Craft for Use in the Baltic

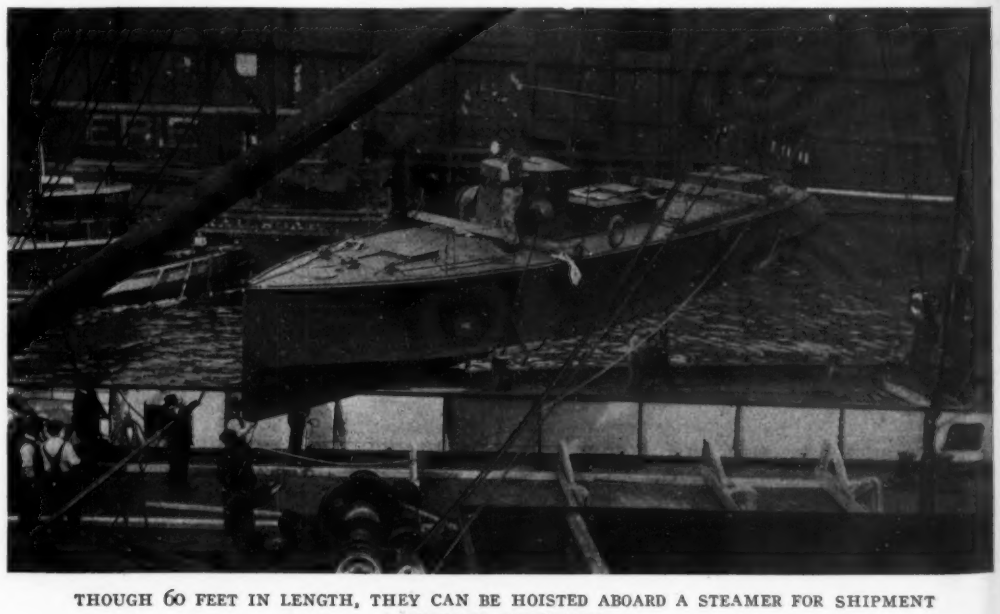


IN view of the prominence that is being given to the part the motor boat is playing in the present European war and to the value of this type of craft as a means of national defense, or as a naval auxiliary in time of necessity, the boats that have recently been built in Greenport, Long Island, for a foreign government are of peculiar interest, as they show the very latest development in high-speed gasolene-driven craft. A number of these boats have already been shipped to Archangel, and more are to follow.

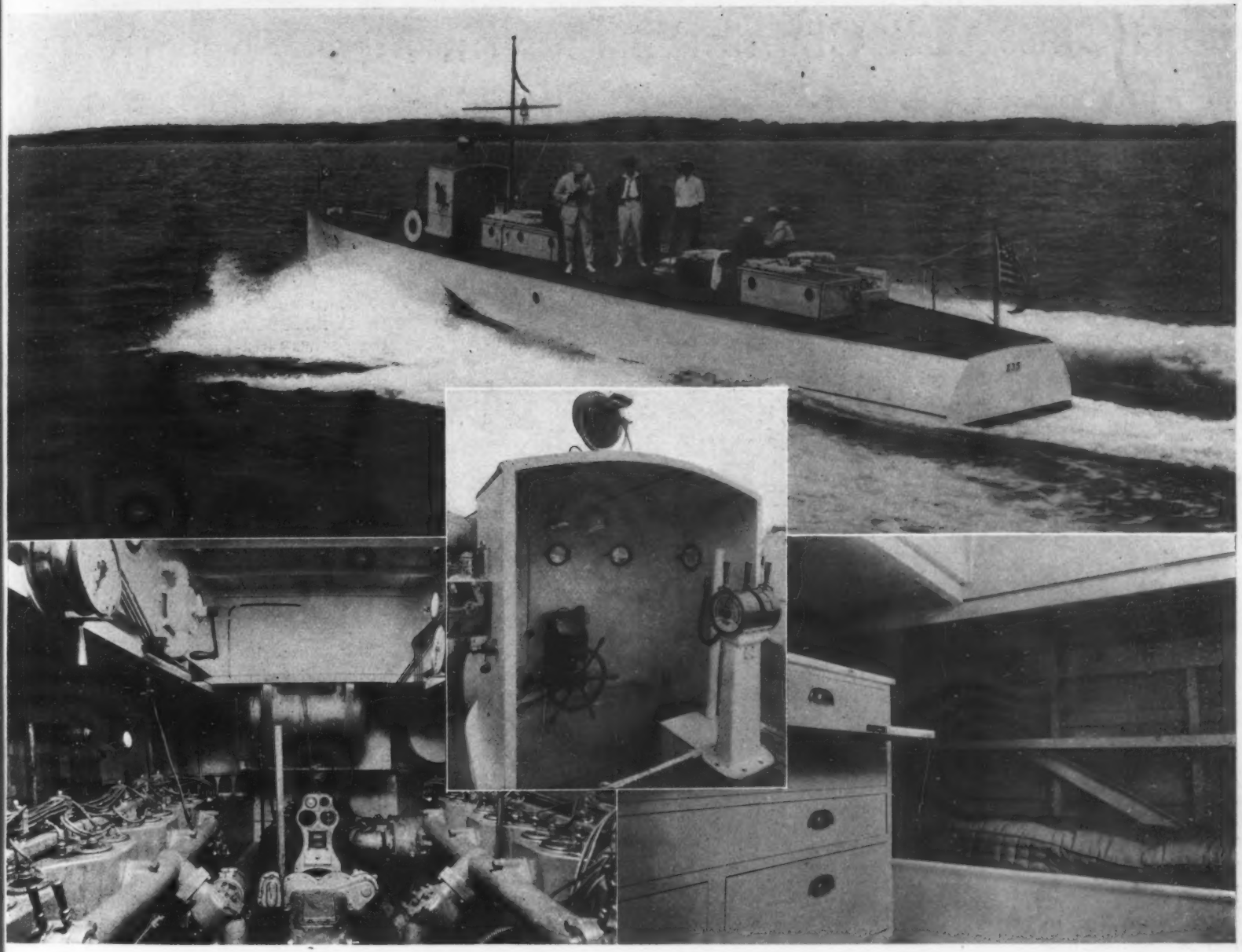
Speed was, of course, a prime requisite in these boats, yet in addition they had to be able to keep the sea in almost any weather, and to have a wide radius of action. The boats, which were designed by J. W. Hussey, of the Greenport Basin and Construction Company, are of the V-bottom type, with the floor flattening out aft so that they are in reality a giant monoplane, the dimensions being: length, 60 feet; beam, 10 feet; draft, 2 feet 10 inches. They are powered with three 8-cylinder, 5½" x 6" motors, tested to 175 horsepower each at 1,450 revolutions per minute. These engines drive three screws. The engines are installed amidships, one being on the fore and aft midship line and ahead of the other two, which are placed on either side of the center line.

With this power plant a speed of 26 miles per hour was guaranteed, with a cruising radius at top speed of 300 miles on one filling of the tanks; yet each of the eighteen boats already built has been well over this speed, the slowest attaining 28.1 miles per hour, and the fastest 30.3, the average for the lot being 28.6 miles per hour. Fuel is carried in four 270-gallon tanks placed just abaft the engine room, giving a total capacity of 1,080 gallons, and at a speed of 26 miles per hour this gives a cruising radius of from 500 to 600 miles, while at a lower speed 1,000 miles can be covered on one filling. On the speed tests the boats carried 750 gallons of gasolene, 30 gallons of oil and seven passengers and crew.

Turning now to the boats themselves, they are extremely handsome and business-like-looking craft, being flush decked, with a small, steel steering shelter just forward of amidships as protection for the helmsman and a small house skylight over engine room and after stateroom. The hulls are subdivided by four steel watertight bulkheads, two shutting off the engine room from the rest of the boat, and an additional steel bulkhead 'way aft going only half way to the deck. There is a good-sized forward cabin containing accommodations for six men, an oil stove, toilet and lavatory, while aft is a smaller stateroom with accommodations for two officers, a chart table, chest of drawers



THOUGH 60 FEET IN LENGTH, THEY CAN BE HOISTED ABOARD A STEAMER FOR SHIPMENT WITHOUT DIFFICULTY



OF THE V-BOTTOM, SINGLE-PLANE TYPE, THEY GO OVER THE WATER WITH BUT LITTLE FUSS

THE THREE 8-CYLINDER ENGINES INSIDE OF STEEL STEERING SHELTER AFTER STATEROOM

nd an enclosed toilet room. Still further ft is a large lazarette. The frames are of Douglas fir, with steam-bent oak frames lapping over, and the planking is of one-inch edar, the construction being of the seam-batten type. They are all electric lighted.

There is no question that these boats are very efficient, and would not only be useful o any government as submarine destroyers, scout boats and the like, but would make excellent pleasure boats for those that want omething fast and seaworthy. They are steered by two rudders connected with a perpendicular wheel in the steering shelter.

Burning Up the Sound

The performance of the boats under actual service conditions can perhaps best be shown by describing a trip made on one of them from Greenport to New York under her own power, while being delivered to its American agents. All of the boats were delivered in this way.

Backing out of the dock at Greenport, the boat was turned, headed for the end of the breakwater, and "full speed ahead" rung on the engine room telegraph, which had a separate dial in the engine room below for each engine. The breakwater was passed at 8.40 A. M., October 22d, from which departure was taken, the wind being fresh westerly, and weather clear. Orient Point Light was passed at 8.49 in 19 minutes, the distance being 8¾ statute miles. A rough, confused sea was met in the Race, and, with the northwester increasing, the boat was headed for the Connecticut shore for smoother water. Though the seas were high and steep, the boat was remarkably dry, the speed being so great that, with a head wind, the spray that was thrown was blown aft clear of the boat, the only place that was wet on deck being well aft, close to the transom. There was also remarkably little pounding and vibration, considering the sea, the boat running very smoothly.

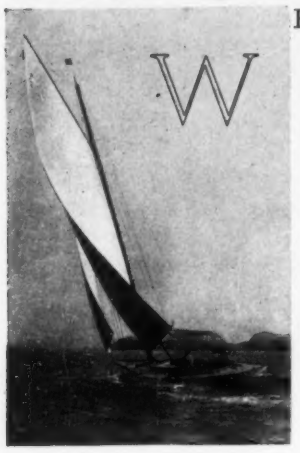
So great was the speed that we were constantly running upon flocks of ducks, catching them unawares. As they rose, head to the wind, in the same direction we were going, it took them some time to get away from us, while in several instances they flew along abreast of us at approximately the same speed. Frequently they would get up right under our bow and had hard work to clear the wash from our bow wave.

New Haven was clocked at 10.28, or just 1.29 minutes from Orient Point. The breeze was freshening all the time and the Sound was covered with white crests, but, as we were not more than a mile off shore, there was no great chance for it to kick up much of a muss. Execution Light was sighted at 12.10, and at 12.23 it was abeam, it having taken only 3 hours and 24 minutes to run from Orient Point, or the whole length of Long Island Sound. It was "some run."

Here the engines were slowed down to 900 revolutions per minute (they had been turning 1,125), on account of the driftwood in the river, and we tied up at the dock of the New York Y. C., at the foot of Twenty-third street, at 1.09, just 4 h. 29 min. from Greenport, the distance being 113½ miles.

The Class "P" Championships on Massachusetts Bay

Nutmeg III Wins a Second Leg on the Lipton Cup and Throws it Open for Another Year. Some Fine Racing off Marblehead and Boston



WHEN Nutmeg III, formerly the Corinthian, just managed to squeeze through with the 1914 Championship in Class "P" at Marblehead, the result depending not only on the last race, it will be remembered, but on the decision of a protest as well, it meant that the Lipton Cup, the most coveted trophy on Massachusetts Bay, would be up for competition at least another year. For the deed of gift of this cup provides that it must be won three times by the same owner to become his permanent possession, and at that time both George Lee, with his Italia, and C. B. Wheelock, with Amoret, had each won two legs. Allen C. Jones just managed to nose Italia out of winning the final leg, and the "P" boat owners breathed easier. This year the Nutmeg III repeated the trick, winning, however, by a wider margin, and now three Class "P" skippers each have two legs and, if any of the three win next year, it means a new trophy for this hard-fighting class. J. B. Fallon also won the cup once with Timandra, but, as he is not racing in the class at present, he is out of the running unless he returns with a new boat.

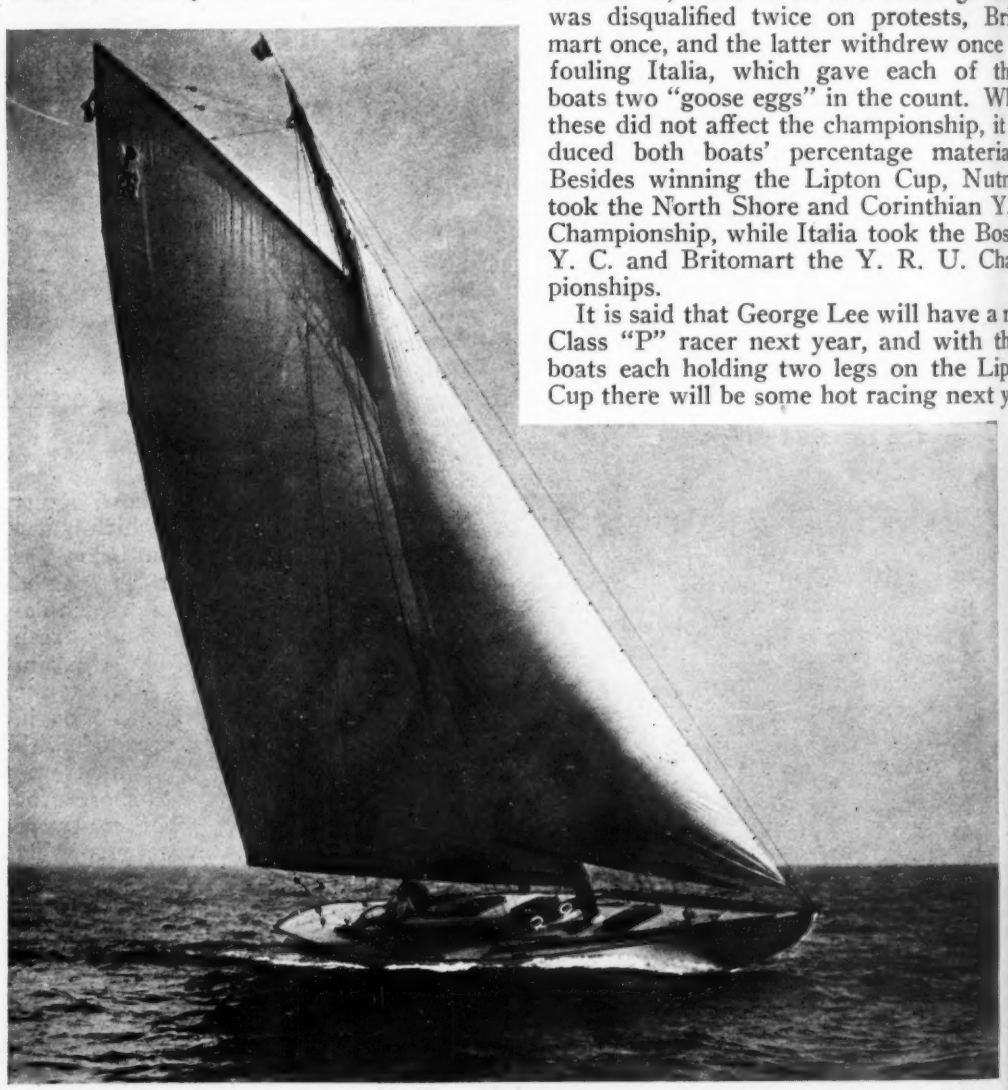
Four Class "P" yachts raced this year—the Nutmeg III, Britomart, C. B. Wheelock's 1914 racer, Italia, and Vernon F. West's Sayonara II. The latter yacht put up the hardest kind of a fight and led for a large part of the season; and as it was a year of strong breezes and Sayonara is at her best in a blow, it looked for a while as if West would take the cup back to Portland with him. Sayonara started in with a rush and won four firsts and two seconds out of her first seven races, which is "going some" in this class.

The weather, however, was particularly unsatisfactory throughout the season, usually favoring some one boat more than another, and a number of races were decided on flukes, due to unforeseen shifts of wind, etc., the beaten boat that was willing to take the loser's chance and break with the fleet frequently profiting thereby and winning. In all, it is said that there were only four days that could be called good, fair racing weather, where all the boats fared equally. As an example of how important a part these conditions often played, in the race of July 3d Sayonara was nearly five minutes late at the start, yet West gamely crossed the line and went on after the others, and by hugging the Marblehead Neck shore worked a streak of wind nicely and finished ten minutes ahead of the second boat. It's all part of yacht racing, of course, and all the boats had their lucky days, but it wasn't good racing weather.

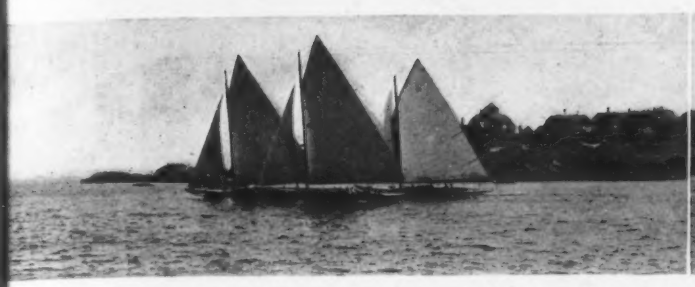
Up to the race of September 4th, which was next to the last event, Nutmeg and Sayonara were so close in their standing that Jones had to finish next to Sayonara in both of the last races to win; for if any other yacht slipped in between the two leaders, Nutmeg's chances were cooked. September 4th was a day of heartrending flukes, and Britomart was the only boat near the line at the start, which was in a light breeze. After rounding Archer's Rock buoy the wind hauled to the westward, making the course a reach the whole way, and on rounding the outer mark, Pig Rocks buoy, Britomart led Sayonara by about one minute, Italia by four minutes and Nutmeg III by seven minutes. It looked like Sayonara's Lipton Cup, but, after rounding the guide mark off the Neck with less than half a mile left to go, the boats ran into a fading breeze and Nutmeg III came up fast, ghosting along in the lighter air with a good full in her perfect Ratsey sails, and slipped by all three boats one after the other, carrying her way long enough to win, while Sayonara got into a soft spot and finished last. That gave Nutmeg III the Cup; and though she won the next and last race, she did not need it, as Sayonara had gone home and did not race.

Thus Nutmeg won the Lipton Cup, while Sayonara II finished in second place, with Britomart third and Italia last. The table below shows the standing of the yachts in this event. As an indication of how closely these boats were matched, it may be noted that in the twenty-four races that counted for this trophy Sayonara II won 7, Nutmeg III won 6, Britomart 6 and Italia 5. Italia was disqualified twice on protests, Britomart once, and the latter withdrew once for fouling Italia, which gave each of these boats two "goose eggs" in the count. While these did not affect the championship, it reduced both boats' percentage materially. Besides winning the Lipton Cup, Nutmeg took the North Shore and Corinthian Y. C. Championship, while Italia took the Boston Y. C. and Britomart the Y. R. U. Championships.

It is said that George Lee will have a new Class "P" racer next year, and with three boats each holding two legs on the Lipton Cup there will be some hot racing next year.



NUTMEG III, WINNER OF THE LIPTON CUP. BY HER WINNING THIS YEAR, THREE CLASS "P" OWNERS NOW HOLD TWO LEGS ON THIS FAMOUS TROPHY, AND THE CHANCES ARE GOOD THAT IT BECOMES SOMEONE'S PERMANENT PROPERTY NEXT SEASON



CLASS "P" BOATS OFF MARBLEHEAD NECK—SAYONARA, BRITOMART AND ITALIA

THE BAR HARBOR THIRTY-ONE FOOTERS IN A CLOSE START AT MARBLEHEAD

—and some one will win it permanently, unless Vernon West steps in with Sayonara and stops him, or unless some newcomer enters the class with a winning boat.

LIPTON CUP PERCENTAGES, SHOWING STANDING OF BOATS AT CLOSE OF EACH RACE.

	Nut-meg.	Sayon-ara.	Bri-tomart	Italia	Positions, N	S	B	I
May 31	...	...	1000	...	..	..	1	..
June 12	333	1000	833	...	3	1	2	..
" 17	541	625	722	1000	2	4	3	1
" 19	...	750	666	...	..	1	2	..
" 26	527	750	733	625	3	2	1	4
July 3	583	800	611	583	2	1	..	3
" 5	666	791	595	437	1	2	3	0
" 10	680	821	583	400	2	1	3	4
" 17	690	781	629	375	2	3	1	4
" 24	729	750	591	428	1	3	4	2
" 31	759	725	606	375	1	3	2	0
Aug. 7	...	689	611	444	..	3	2	1
" 10	783	...	589	466	1	..	3	2
" 11	734	694	616	469	4	2	1	3
" 12	715	666	627	513	3	4	2	1
" 13	698	684	635	493	3	1	2	4
" 14	683	655	642	529	3	4	2	1
" 17	...	645	662	...	..	2	1	..
" 18	672	666	626	544	3	1	0	2
" 19	676	685	608	541	2	1	4	3
" 21	681	662	603	568	2	4	3	1
" 28	685	641	621	564	2	4	1	3
Sept. 4	701	622	615	572	1	4	3	2
" 6	716	...	604	582	1	..	3	2
Totals	716	622	604	582	..	..	..	..

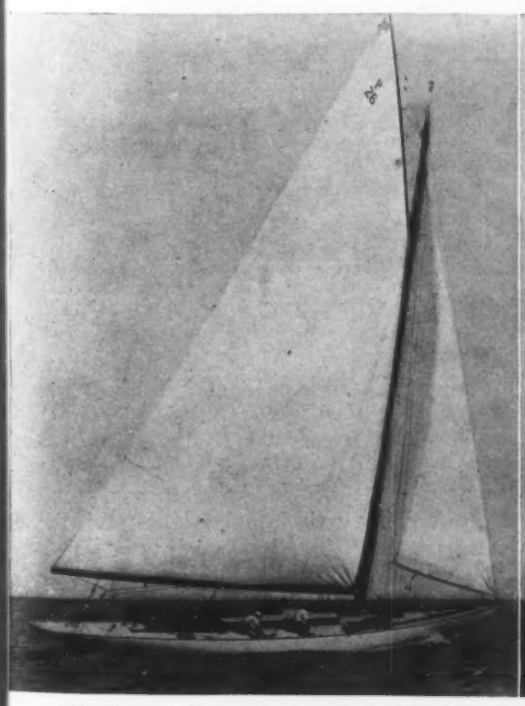
In addition to the Lipton Trophy races, the "P" Class took part in two other events during the season, and the standing of the boats for the entire season is as follows: Nutmeg, .727; Sayonara, .670; Britomart, .583; Italia, .579. Ten of the races counted for the Corinthian Yacht Club Championship, six for the Boston Yacht Club Championship and four for the Y. R. U.

The averages in the Corinthian Championship were: Nutmeg, .812; Sayonara, .656; Britomart, .564; Italia, .427, and in the Boston Yacht Club—Italia, .750; Sayonara, .708; Nutmeg, .555, and Britomart, .486. Sayonara had hard luck in not winning the Boston Championship, for in the last and deciding race, when ahead and with a good chance to win, a shift of the wind placed her to leeward of the other boats and out of the running.

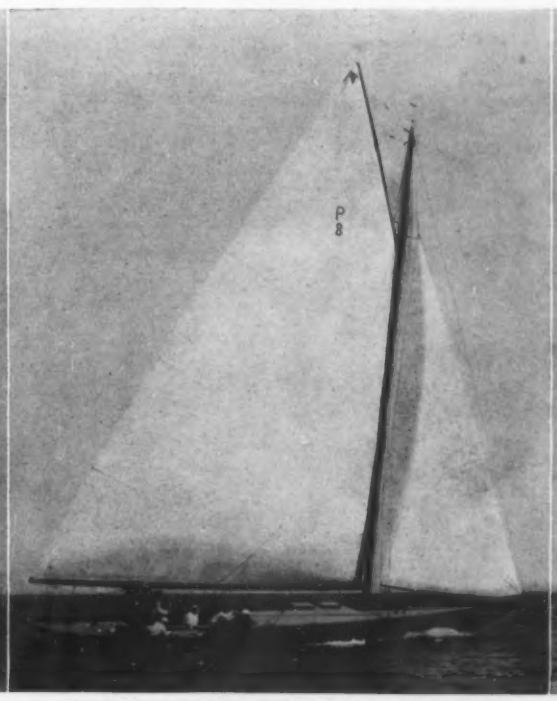
A. C. JONES, T. R. GOODWIN AND "GUS," THE BOARD OF STRATEGY OF THE NUTMEG

What the Other Boats Did on the Bay

NOT only in Class "P" was the racing particularly good, but Massachusetts Bay yachtsmen as a whole had a very interesting and satisfactory season. In the "R" Class, which attracted the most interest outside of Class "P," six boats were racing, and the fight was a red-hot one from start to finish. Three of the boats were new in the class, one being Huskie II, a new Owen boat owned by A. Francis Breed, another Ilderim, a sister boat to Margaret and Joyetta of the Sound, which had been bought by Henry A. Morss, and the Little Rhody, an old Q boat that was cut down to fit the class. The fight for the championship narrowed down in mid season to the Sumaki, owned by William K. Harcourt, which won the championship last year, and Little Rhody, with the Alpha, C. H. W. Foster's little boat, close behind them. Sumaki has always been the best boat in a breeze, but Little Rhody was so much bigger and more powerful that she also showed up well in heavy weather, of which there was a good deal at the beginning of the season. These two boats and Huskie rather overpowered the rest of the fleet, the others being considerably smaller. Huskie II was 25 feet long on the water, while Little



NUTMEG III, A GHOST IN LIGHT WEATHER



BRITOMART, THE NEWEST BOAT IN THE CLASS

SAYONARA, BEST IN A BREEZE

START OF THE "R" CLASS. SIX OF THESE FINE LITTLE RACERS PUT UP A RED-HOT FIGHT AT MARBLEHEAD

Rhody is about 26 feet, which is pretty big for a Class "R" boat. Sumaki finally won the championship, with Little Rhody second, Alpha third, Huskie II fourth, Ilderim fifth and Beta sixth, though the finish was so close that in the race of September 4th, which ended in a calm in which many of the boats withdrew, Sumaki could not afford not to finish, and refused all offers of a tow home, remaining becalmed off the mouth of the harbor for a long time before she could get over the line.

Sumaki also won the Foster Cup and the Corinthian Cup for Class "R." After the season closed Little Rhody was protested on account of measurement, it being held that she did not fit in the class on account of her size, and, while it is unusual to protest a boat that did not win, it is a question that the Class "R" owners want settled before next year on account of its effect on future building.

The new Yacht Racing Union, an amalgamation of the old Massachusetts Bay Yacht Racing Association and the Interclub, worked out in a fairly satisfactory manner. There are always a lot of new adjustments to make in any such consolidation, and it takes a year or two before matters settle down to their proper status.

Winners of Boston Yacht Club championships were: Bar Harbor 31-footers—Mildred IV; first Special Rating Class, Manataqua; second Special Rating Class, Radiant; 18-foot Knockabout Class, Dorchen II; Hull 15-footers, Nicknack II.

The Corinthian Yacht Club held the usual mid-summer series August 12, 13 and 14, which, while not as large in point of number of boats starting as was the case in 1914, brought about excellent racing; 173 starters was the high-water mark for one day, while a grand total of 507 boats started in all classes in the three days of racing.

Tyro, owned by Hollis Burgess and sailed under the colors of the Mosquito Fleet Y. C., took the Bermuda Cup in the Labor Day Race and also won in Class "A," Y. R. U. Joseph Santry's Flight won the 31-Foot Championship in the Y. R. U.

The Escape of Interned German Officers on the Eclipse

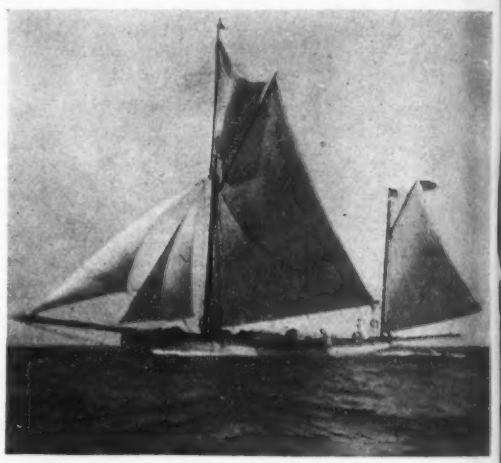
There has been a great deal of interest and speculation and some danger of international complications in the escape of six petty officers of the interned German cruiser Kronprinz Wilhelm from Norfolk in the auxiliary yawl yacht Eclipse some weeks ago. So far no definite information concerning the yacht or the method in which the officers obtained her has been made public. These facts have been recently sent us, however, by one of our subscribers who was a part owner of the yacht in question, together with a picture of the boat:

The Eclipse was owned by B. F. Mitchell, of Norfolk, and others, and was an old

SUMAKI, AGAIN WINNER OF THE CLASS "R" CHAMPIONSHIP

yacht of 23 tons, having been built in 1881. She was, therefore, 34 years of age. She was 50 feet long on the water, 65 feet over all, 16 feet 9 inches beam, and drew 6 feet. She was of the combination keel and centerboard type. She was changed into a yawl about five years ago and a gas engine installed, which gave her a speed of about 4 knots an hour. Her sails and engines were in their fifth season; the sails were worn out and the engine required rebabbitting. Her ex-owner writes that, despite her age, her outside planking and main frames were sound, but the paneling around the cabin house needed replacing and her top timbers were under suspicion. The buyers were fully informed of her condition before purchasing.

When the six officers made an offer on the boat they stated that they wanted her for week-end sails on Chesapeake Bay and for fishing trips up and down the bay to while away the leisure of their internment. These warrant officers were formerly merchant officers of the Kronprinz Wilhelm.



THE AUXILIARY YAWL ECLIPSE, IN WHICH THE GERMAN OFFICERS ESCAPED

with no military training, and the ex-owners did not form a very high opinion of their ability to handle the boat when they were trying her out previous to purchase. Before making the transfer, the old owners reported the matter to the Collector of Customs, who wrote to Washington, where the matter was reported back to the Commandant of the Norfolk Navy Yard. He endorsed the transaction and said that he saw no objection to the Germans cruising in Chesapeake Bay. The Collector of Customs heard nothing from Washington, so part of the money was paid over by the officers, the remainder to be paid in ten days. Four days before the final payment the ex-owners informed the Customs House that the sale would be completed and, there being no objection, he took out a Custom House license and bill of sale.

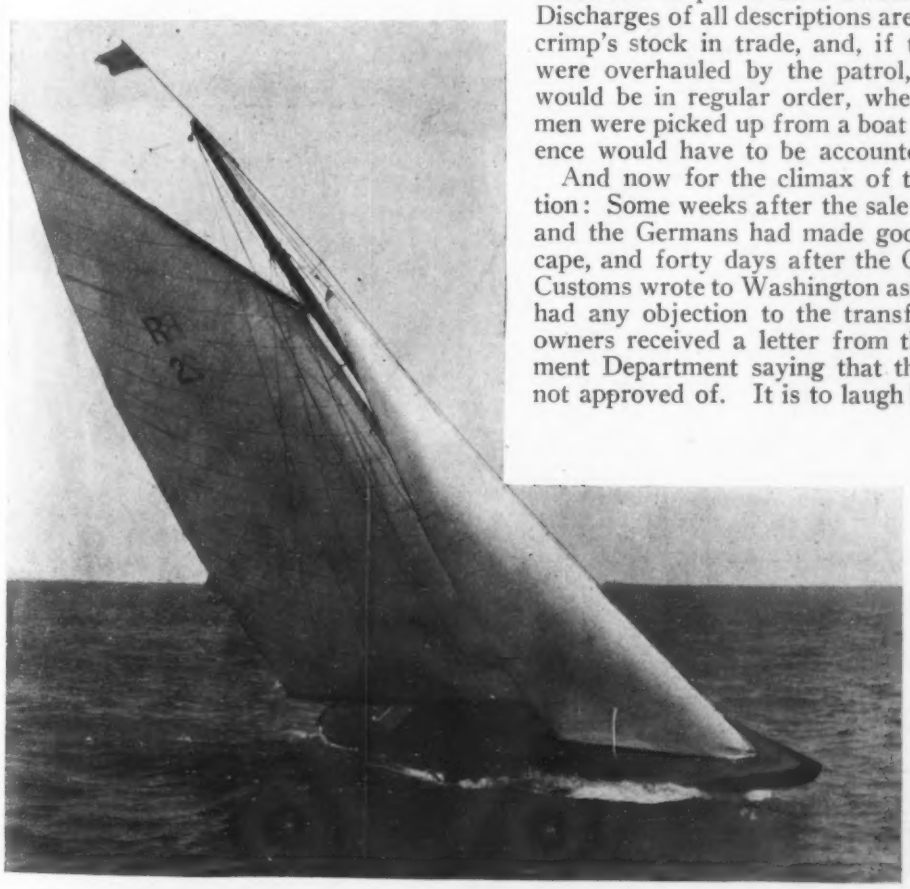
After buying the boat the Germans got a new suit of sails, but kept the old ones bent and the new ones were stowed below. They were made of yacht canvas, and no storm sails were purchased, nor were any covers

made for the one large and two small skylights on the cabin house.

The Eclipse pulled out with the six officers aboard on a Saturday and on the way out ran aground off Craney Island, though they had had a fair breeze, and had to be pulled off. The last authentic report of the sighting of the vessel was at 3 P. M. Sunday, when she was east of Thimble Shoals Light, in lower Chesapeake Bay. They were headed out towards the sea, and it was then blowing fresh from the northeast. That night it breezed up very hard, and if they headed off shore they would have gone to the southward or southeastward and Monday morning would have found them in the Gulf Stream with a very heavy N. E. sea and half a gale of wind. Nothing more has been heard from them, though there are vague and unconfirmed reports of her having been sighted in widely separated localities. In the opinion of the ex-owners, if the Eclipse was in the Gulf Stream that Monday, she will never be heard from again, as the yacht was in no condition to go to sea. It would only have taken one sea to have smashed in her skylights and deck openings and finished her. Yet, everything points to the fact that she did go off shore. If the Germans merely wanted to get clear of the Bay and be picked up by a friendly steamer bound to Sweden or some of the other neutral countries, a small motor boat would have answered their needs; nor would it have been necessary to purchase a new suit of sails, as they did. If, also, any sailor had wished to get to Germany without its being known, he would go to some crimp in Philadelphia or New York and pay him to get a discharge as a Swedish sailor and ship him on a Swedish steamer. Discharges of all descriptions are part of the crimp's stock in trade, and, if the steamer were overhauled by the patrol, all papers would be in regular order, whereas if the men were picked up from a boat their presence would have to be accounted for.

And now for the climax of the transaction: Some weeks after the sale was closed and the Germans had made good their escape, and forty days after the Collector of Customs wrote to Washington asking if they had any objection to the transfer, the ex-owners received a letter from the Government Department saying that the sale was not approved of. It is to laugh!

COLLECTING DRIFTWOOD IN NEW YORK HARBOR. THE RESULT OF ONE MORNING'S WORK. AT THE INSTIGATION OF THE WATER WAY LEAGUE AN APPROPRIATION HAS BEEN MADE BY THE FEDERAL GOVERNMENT TO CARRY ON THIS WORK AND FOR A SPECIAL MOTOR BOAT FOR THE SERVICE TO REPLACE THIS LIGHTER



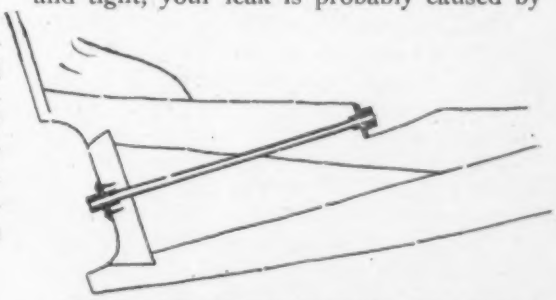
BANSHEE, A NEW CHICAGO CLASS "R" BOAT. FROM DESIGNS BY JOHN G. ALDEN FOR OTTO SCHOENWERK, JR. SHE SAILED IN TEN RACES THIS SUMMER AND WON NINE OF THEM, ON SEVERAL OCCASIONS BEATING THE CLASS "P" BOATS ON TIME ALLOWANCE

A Leaky Shaft Log

I have considerable trouble with a leaky shaft log which I cannot seem to correct, though the stuffing box has been repacked several times and is located at the inside end of the log. I presume that there is something wrong with the shaft log itself. Can you give any solution of the difficulty?

A. C.

If your inside stuffing box is well packed and tight, your leak is probably caused by



PIPE INSERTED THROUGH DEADWOOD, WITH STUFFING BOX THREADED ON INSIDE END TO PREVENT LEAKAGE

a heartshake in the deadwood through which the shaft aperture is bored. This often cannot be detected from the outside and will let water in if the shaft hole is bored through one. One way to correct the trouble would be to insert a piece of piping through your shaft hole large enough in diameter to permit the shaft to turn in it readily. Each end of this pipe should be threaded so that the stuffing box can be screwed into it on the inside end and fastened as shown, and the stern bearing on the outside. If the stern bearing is then screwed down with white lead to make a water-tight join, you will get an absolutely tight job. The sketch shows the arrangement mentioned.

The Design of Rating Yachts

By HAROLD A. EVERETT

Professor Marine Engineering U. S. Naval Academy and late Measurer of Massachusetts Bay Y. R. A.

SINCE the adoption of the present rule for the classification of yachts for racing purposes in 1909 (slightly revised in 1913) there has resulted such an admirable type of racing yacht that there seems to be small reason for any yacht being built to-day that does not conform to some class of the Universal Rating Rule, whether the owner wishes to race actively or not. My experience for some years past as measurer for the principal yacht clubs of Massachusetts Bay has given opportunity for a careful analysis of many boats built under the rule, and has convinced me that the rule as it now stands eliminates freak features, if competently applied, and at the same time permits a wide latitude in the design.

The rule is so good that to the novice designer it, in conjunction with the clause of limits, serves as material help in obtaining a reasonable product, while for the experienced designer it effectually prevents excesses. It may be of great assistance to the former to have information concerning the general proportions of existing Universal Rule yachts and the manner in which they vary, with a suggestion as to a logical method of assembling the various units, and it is hoped that the following notes, which were primarily evolved for the classes taking the brief course in yacht design at the Massachusetts Institute of Technology, will accomplish this purpose. The article presupposes on the part of the reader a knowledge of the general methods of fairing lines and the customary hull calculations.

The design of a yacht's hull is essentially of a dual nature, i. e., *form* and *construction,* and it is obvious that the best criterion for judging the merits of *form* is speed. If, under the same conditions of rig and handling one hull is faster than another, it is due to one hull form being of less resistance than the other, so that it is essential for successful yacht designing to consider the question of speed as vital. There may be elements entering into designs which preclude the form's being fast, but, nevertheless, it is essential that it be the fastest that those conditions will permit.

The total resistance of a well-formed yacht is built up, mainly, of two components termed frictional resistance and wave-making resistance. The first is the frictional resistance of the water rubbing upon the wetted surface of the hull, and is proportional for a given speed to that surface; the second is due to the wave system which the hull maintains in its progress through the water, and is affected by the displacement and form of the underwater body. With the above in mind, then, two of the important designing desiderata are, *keep the wetted surface a minimum* and have *a*

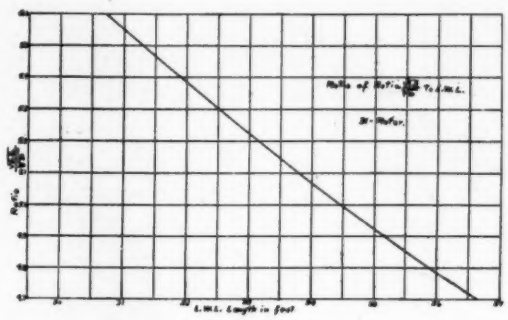


FIG. 1

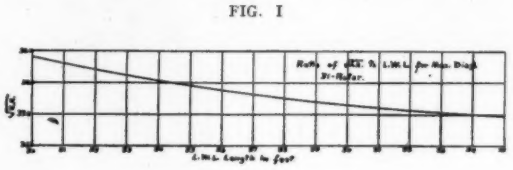


FIG. 2

fair, easy form from end to end under all sailing inclinations.

Any design is, primarily, the acceptance of good features of former designs and the molding of them into a well-proportioned unit; therefore, reference should be had to former designs as published in the yachting publications or as available elsewhere. Care should be exercised, however, in looking over former designs to discriminate between features which are the result of good designing and features which are the enforced result of local conditions, as limited draft, or attempts to beat the rating rule.

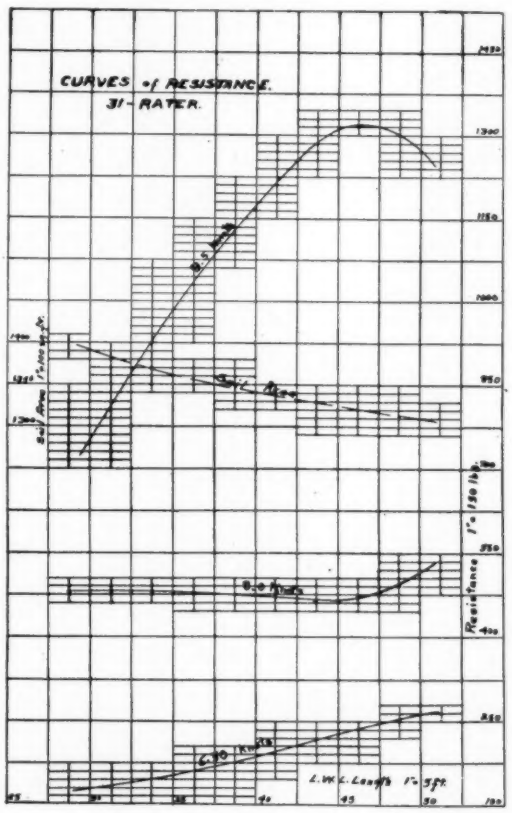


FIG. 3

No proper understanding of the characteristics of earlier and present-day yachts can be had unless one has a reasonable familiarity with the former and existing rating rules and their *raison d'etre.*

If there are two yachts exactly similar in every respect, and one is larger than the other, the larger one will sail faster when sailing in the same breeze. On this account it is unfair for a large yacht to race against a small one without giving a handicap. This was clearly recognized in the earliest days of yachting, and the handicapping by time allowance was the result. It was considered at first, and correctly, that for normally formed yachts the proper basis for comparison of size was the length on the load water line, and all that the various rules since that early day have attempted has been to give a resultant rating which fairly represented the size of the yacht. When the load water-line length was used for the size, or rating, the efforts of designers were expended in attempting to build what was in effect the *largest boat* that could be built on a given L.W.L. length, as the larger the boat the greater the speed, other things being equal. The direct result of this was a boat of the extreme scow type with abnormally long overhangs, hard bilges, and of extremely poor form, generally speaking. These boats were slow in moderate winds, difficult to make structurally strong, and poor sea boats, though when inclined they lengthened out into nearly normal forms or rather forms similar to a normal boat of very much greater size. After this, many rules were made penalizing excess in several directions, and in 1909 the present rating rule was evolved, which is theoretically correct, and has so far not been beaten sufficiently to result in a boat of abnormal form. The new rule takes into consideration the three factors that enter into a boat's speed, viz., length (water line), sail area (driving power) and displacement, or the weight of the body to be driven through the water. The rule in use in this country is termed the Universal Rating Rule, and should not be confused with that adopted in Europe about the same time, which is called the International Rating Rule.

It is recommended that the beginner in designing should confine his efforts to the smaller yachts of 31-foot rating, or under. Considering a sloop for the 31-foot rating class (Class P) it is obvious that the different elements of displacement, sail area and length of L.W.L. are tied together in such a way that when one or two of them are selected the others may be solved for directly from the rating formula:

$$\text{Measurement} = 0.18\,\frac{L \times \sqrt{S\,A}}{\sqrt[3]{D}}$$

For example, if, for the case in hand, we accept a rating of 31 feet and substitute into the equation for rating a water-line length of 32, 33, 34, 35 or 36 feet successively, we will come out with values of the ratios of the square root of the sail area divided by the cube root of the displacement $\frac{\sqrt{S\,A}}{\sqrt[3]{D}}$, which, when plotted with L.W.L. as abscissæ, will give us a curve of the character shown by Fig. 1. Now, if any displacement be selected the value of the sail area which is to accompany this for the given rating can be determined from this plot. But there is a limit placed upon the displacement. This limit is that the cube root of the displacement in cubic feet shall not exceed 20 per cent of the L.W.L. plus .50. Accepting this maximum permitted displacement, we may get by substitution in the rating formula the following formula:

$$R = \frac{.18\ L.W.L. \times \sqrt{S\,A}}{.20\ L.W.L. + .50}$$

This involves but *two* unknowns, namely, water-line length and sail area, so that if for the above-mentioned water-line lengths solution is made for the square root of sail area a curve of the type shown by Fig. 2 will result. This is true, of course, only for designs in which it is desired to use the maximum displacement credited in the rating formula.

It will be noticed that these curves are without maxima or minima within reasonable limits of L.W.L. length, so that in themselves they give no indication of the best length. If, however, we had available for different lengths of L.W.L. the resistance curves for several speeds, as in Fig. 3, it would be possible to select lengths at which the ratio of resistance to sail area was a minimum. These would be the desirable lengths for the speeds taken. Resistance curves for yacht forms cannot be satisfactorily constructed from the experimental data at present published, and recourse is usually had to general experience in selecting this dimension. In Fig. 4 the curve labeled "desirable proportions" approximately represents the most successful lengths in the various classes.

For the case in hand, selecting a water-line length of 35.5 we should expect a sail area $(36.89)^2 = 1{,}360$ square feet, and a displacement of $(7.6)^3 = 439$ cubic feet.

The curve of Fig. 5 gives $\sqrt[3]{D}$ on beam at L.W.L. This has been derived from a number of successful Class "P" yachts, and will serve as a guide in determining L.W.L. beam.

A curve for the same purpose, but derived independently, is that of Fig. 6. They both give, approximately, the same result, and the equations for them are as follows:

L.W.L. beam $= 1.25\ \sqrt[3]{D} + 0.9$ (Fig. 5).
L.W.L. beam $= .246\ L.W.L. + 1.7$. (Fig. 6).

From this information we will choose the L.W.L. beam of 10.4 feet for our design. The extreme beam varies from 4 per cent to 8 per cent greater than that at the L.W.L. Therefore, our extreme beam will be $1.06 \times 10.4 = 11.03$ feet.

The question of the length of overhangs, freeboard and sheer and area of lateral

(*Continued on page* 260)

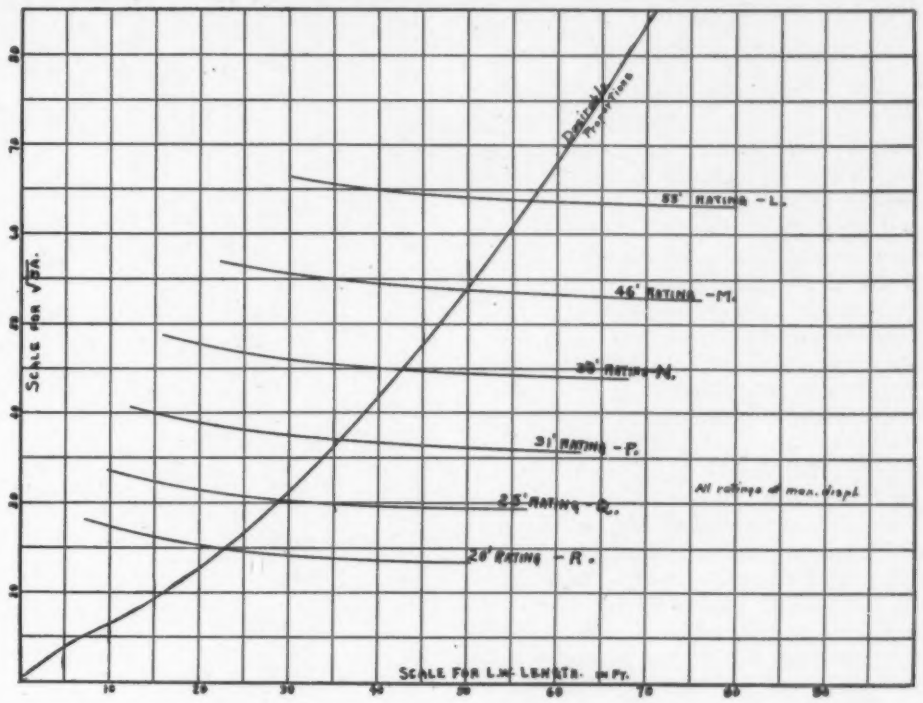

Desirable Proportions
55' RATING - L.
45' RATING - M.
38' RATING - N.
31' RATING - P.
25' RATING - Q.
20' RATING - R.
All ratings at max. displ.
SCALE FOR √SA.
SCALE FOR L.W. LENGTH. in Ft.

FIG. 4

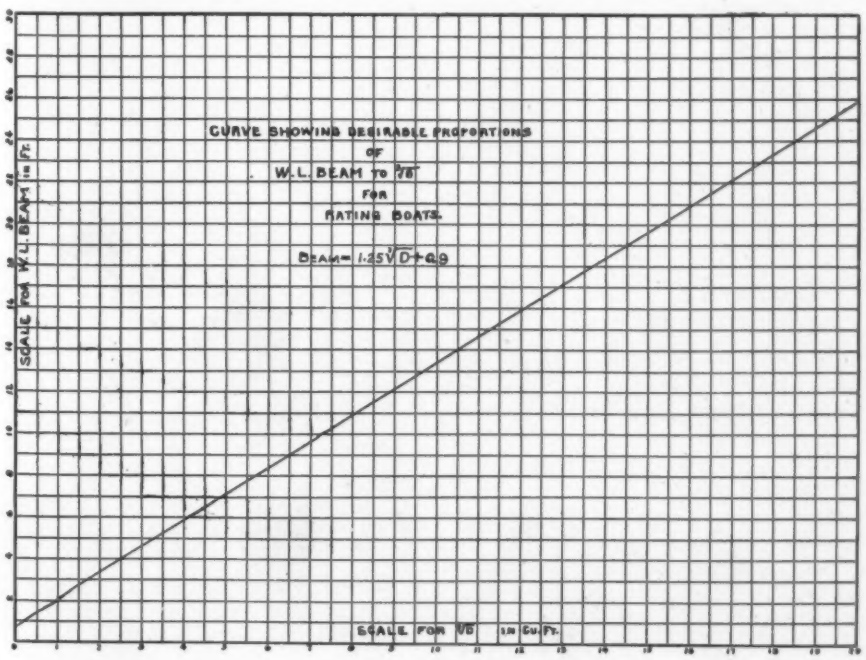


FIG. 5

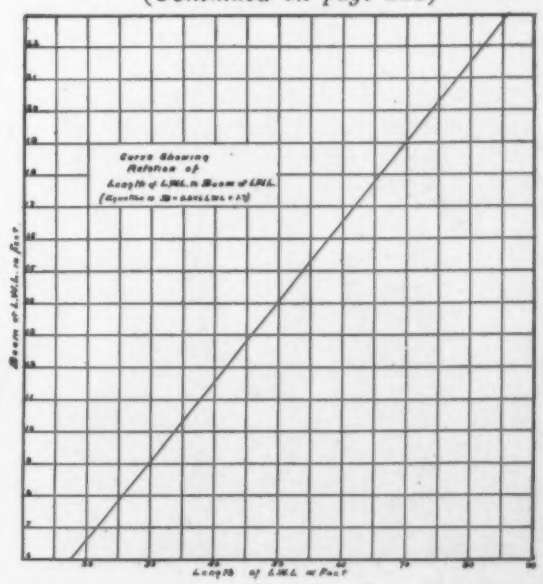


FIG. 6

The Handicap Class Has a Successful Season

IN spite of the fact that the fleets at most of the regattas on Long Island Sound were not quite as large this year as in 1914, the Handicap Class of Long Island Sound more than held up its end, and on September 19th closed a very successful season with one of the best races ever given by the class.

As all racing men know, the Handicap Class was formed to provide racing for outbuilt or outclassed yachts, or those that did not fit any particular class, and instead of rating them by arbitrary measurement formula, they are handicapped according to the *actual performance* of each boat in the four previous races, the handicaps being expressed in a percentage of the elapsed time rather than a definite number of minutes. It speaks volumes for the satisfaction of this method of handicapping boats of widely different types and size, that this system, tested out during the past ten seasons, is still found satisfactory, while most other arbitrary methods of handicapping a mixed fleet have not stood the acid test of time. If handicapping is done at all, the method used by the Handicap Class provides just as good racing as any other, with the additional advantage that it is mathematically accurate if the handicapper does his work correctly—and there is small chance that he won't, with thirty-five or forty racing skippers watching the handicapping lists every week.

Thirty-five boats were enrolled in the Class this year, and all but two of them took part in the racing during the summer, and, while some raced more consistently than others, the Class furnished a total of 325 starts in the regular races on the Sound, or an average of almost 10 per boat. The boat that holds the record for the largest number of starts is the Carolina, in the first division, which started 23 times out of a total of 25 races.

A number of new boats joined the Class at the beginning of the season, which always adds interest to the racing. Four of these were in the First Division, which comprises the largest and fastest boats in the fleet. They were the Anita, formerly the Class "P" boat Timandra, owned by George Granbery; the Amoret, another "P" boat, owned by Russel B. Budd; A. W. Lockwood's Carolina, and the Pontiac, a Massachusetts Bay boat, which has been purchased by Walter H. Bowes. In the Second Division the only boat that didn't race in 1914 was the Veda, owned by George Chadwick, which came back into the Class after a lapse of a year. The Third Division found a newcomer in Firefly, lately purchased by E. S. Foster and raced quite consistently, while the Fourth Division had two newcomers, the Miss Modesty, owned by C. M. Reed, and Howard Parker's Chiloe.

There was a red hot fight in the second division throughout the season between Dr. Black's Sally IX, the Redwing, owned by Grace and Loewy, and George Chadwick's Veda. Redwing, the champion of the division for two years in succession, had to be content with third place, Sally IX winning with a percentage of 65.3, with Veda second with 63.1, and Redwing third with 61.6, less than four per cent between the first and third boats. The racing was also close in the third division, and George Gartland's Robinhood III, a very fast boat, particularly in a breeze, had it out with Theodore S. Clark's Natoma. Each boat sailed 17 races and Robinhood won with 72.6 against Natoma's 66.2. H. P. Hornidge's Peg, a boat that needs a breeze to drive her, finished third with 59.7 per cent.

GEORGE E. GARTLAND'S ROBINHOOD III PROVED HERSELF THE FASTEST ALL-ROUND BOAT IN THE THIRD DIVISION AND WON THE CHAMPIONSHIP

PONTIAC, A NEW BOAT IN THE CLASS, OWNED BY W. H. BOWES, WHICH WON THE CHAMPIONSHIP IN THE FIRST DIVISION

SALLY IX, DR. A. E. BLACK, WON IN THE SECOND DIVISION

CHAMPIONSHIP RECORD, 1915.

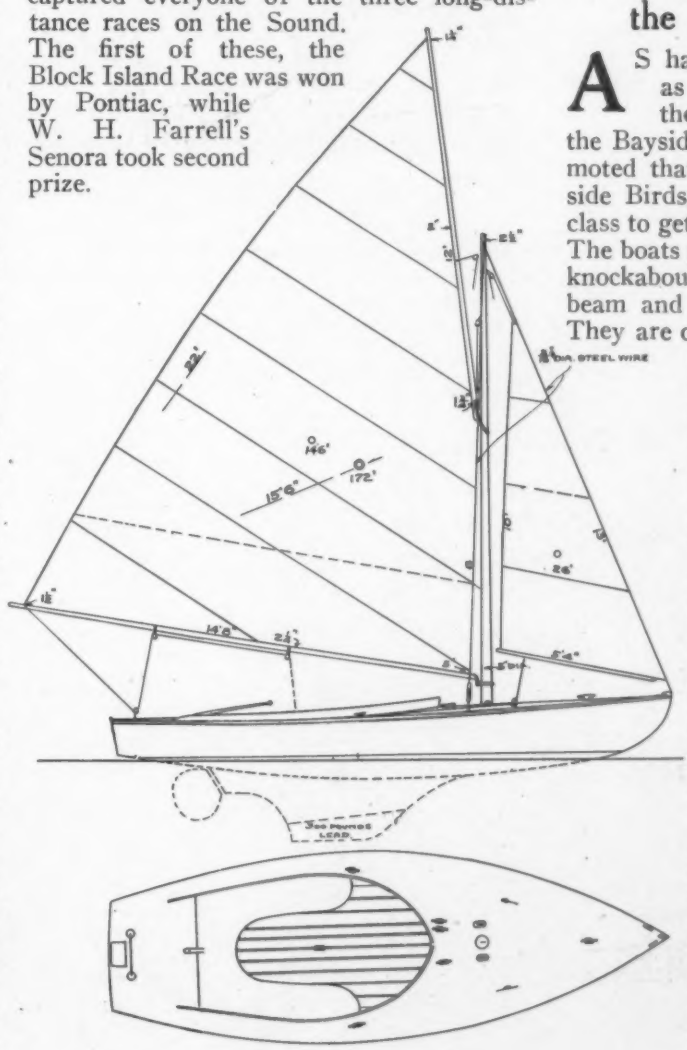
YACHTS.	Knickerbocker, May 29.	Harlem Y. C. May 31.	Manhasset Bay, June 5.	New Rochelle, June 12.	Larchmont, June 19.	Seawanhaka, June 26.	American, July 3.	Larchmont, July 5.	Riverside, July 10.	Larchmont, July 17.	Larchmont, July 19.	Larchmont, July 21.	Larchmont, July 22.	Larchmont, July 23.	Larchmont, July 24.	Indian Harbor, July 31.	Huguenot, Aug. 7.	Horseshoe Harbor, Aug. 14.	Stamford, Aug. 21.	New Rochelle, Aug. 28.	Seawanhaka, Sept. 4.	Larchmont, Sept. 6.	Indian Harbor, Sept. 11.	Manhasset Bay, Sept. 18.	Handicap Class, Sept. 19.	Number of Starts.	Firsts.	Seconds.	Thirds.	Percentage.
FIRST DIVISION.																														
Anita	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	4	3	2	0	0	....
Dorinda	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	2	0	0	....
Amada	1	2	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	2	0	....
Carolina	D.N.F.	1	1	2	1	S. O.	2	2	S. O.	3	2	3	2	1	2	D.N.F.	..	..	S. O.	1	D.N.F.	1	3	1	Dis.	23	7	6	3	53.2
Pontiac	..	..	..	..	..	..	3	1	..	2	1	2	3	2	3	D.N.F.	..	..	..	2	1	2	1	2	1	15	5	6	3	66.6
Okee	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	0	1	0	....
Amoret	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	S. O.	..	..	..	..	..	2	..	3	5	0	3	1	....
Rohilla	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	D.N.F.	..	..	..	1	0	0	0	....
Senora	..	..	..	..	D.N.F.	..	..	..	..	D.N.F.	3	1	1	3	4	D.N.F.	..	..	..	..	D.N.F.	..	4	3	D.N.F.	12	2	0	3	....
SECOND DIVISION.																														
Sally IX	..	2	2	3	2	..	1	..	..	3	7	3	1	4	6	1	3	1	1	D.N.F.	..	..	2	1	5	19	6	4	4	65.3
Mediator	..	..	6	..	1	..	..	2	..	5	3	..	..	..	4	..	..	..	..	..	..	..	3	4	1	9	2	1	2	....
Nadia	..	..	..	..	..	..	2	..	S. O.	..	4	1	2	2	8	2	..	..	2	..	..	..	..	..	..	9	1	5	0	....
Clare	..	3	7	6	..	..	..	..	..	4	..	7	..	..	5	..	D.N.F.	..	..	3	..	..	..	3	7	10	0	0	3	....
Sentana	..	..	4	5	..	..	..	..	..	..	1	6	..	6	..	..	..	..	..	..	..	..	..	..	..	5	1	0	0	....
Red Wing	2	6	5	7	D.N.F.	..	..	..	..	1	5	4	4	3	2	..	1	2	..	2	..	2	1	2	3	18	3	6	2	61.6
Ariel	..	4	3	1	..	..	3	D.N.F.	..	..	..	..	..	..	..	..	..	..	..	1	..	4	..	..	4	8	2	0	2	....
Kenmuir	..	..	..	..	..	..	..	..	..	2	..	..	..	..	7	..	..	..	..	4	..	..	..	6	4	4	0	1	0	....
Veda	1	..	1	2	..	..	4	1	..	6	6	2	3	D.N.F.	1	..	2	3	..	..	..	1	..	5	..	15	5	3	2	63.1
Lillian	..	1	..	..	..	..	..	D.N.F.	..	8	..	5	..	1	9	..	..	..	..	..	..	..	..	..	..	6	2	0	0	....
Mignon	..	5	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	0	0	0	....
Alerion	..	..	..	..	..	..	..	3	..	7	2	8	..	5	3	..	..	..	..	..	..	3	..	..	2	8	0	2	3	....
THIRD DIVISION.																														
Robin Hood III	..	..	..	1	..	1	2	1	2	3	1	4	5	3	2	S. O.	..	..	S. O.	..	D.N.F.	1	2	3	..	17	5	4	3	72.6
Jolly Roger	..	..	..	..	..	..	..	..	..	5	6	2	4	5	5	..	1	1	..	..	..	..	..	..	..	8	2	1	0	....
Firefly	..	3	2	4	..	..	4	..	..	1	4	6	2	6	3	..	..	..	..	..	..	2	1	4	3	14	2	3	3	50.0
Twinkle	..	..	..	..	..	..	3	2	..	2	5	1	1	2	4	..	..	..	..	..	..	D.N.F.	..	5	2	11	2	4	1	....
Natoma	..	1	1	3	..	D.N.F.	1	3	3	4	3	3	3	1	6	..	2	2	..	2	..	..	..	1	..	17	5	3	6	66.2
Peg	..	2	..	2	D.N.F.	..	..	..	1	6	2	5	6	4	1	..	3	3	..	1	..	..	..	2	1	15	4	4	2	59.7
FOURTH DIVISION.																														
Pampero	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	2	D.N.F.	..	..	..	2	..	1	3	6	1	2	1	....
Grace II	..	..	..	..	..	..	D.N.F.	2	..	2	1	3	2	3	1	..	..	..	..	..	..	..	..	4	0	9	2	3	2	....
Miss Modesty	..	..	..	..	..	..	..	..	..	3	3	2	3	1	2	..	1	D.N.F.	..	D.N.F.	..	1	..	2	2	12	3	4	3	....
Chiloe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	D.N.F.	..	4	..	D.N.F.	..	5	0	0	0	....
White Cap	S. O.	S. O.	D.N.F.	..	D.N.F.	..	..	1	..	1	2	1	1	2	3	..	3	1	..	1	..	3	..	..	1	16	7	2	3	78.9

Thirteen races necessary to qualify for championship. Results of long-distance in text. *Alerion won first prize in Section B, Second Division, on September 19.

In the first division, though W. H. Bowes' Pontiac did not start racing until July 3rd, she sailed 15 races and won the championship over Carolina with a percentage of 66.6. Carolina was ahead up to the last three races, but the Pontiac won at Indian Harbor on September 11th, and by winning the Handicap Race on September 19th while Carolina was disqualified for fouling Senora, she finished ahead by a good margin. In the fourth division but one boat qualified, the White Cap, winner last year, and she finished with the high percentage of 78.9. This little boat has been sailed very consistently and well in the last three years and has reaped the benefit by finishing at the top of her division ever since she has raced in this Class. As usual, the fourth division did not get started until very late in the season. This is to be regretted, as this division offers exceptional racing for the smaller boats, that is, boats from 21-feet in waterline length down, that do not fit any open class, and anyone owning such a boat on Long Island Sound that's at all fast should have a good chance in this division.

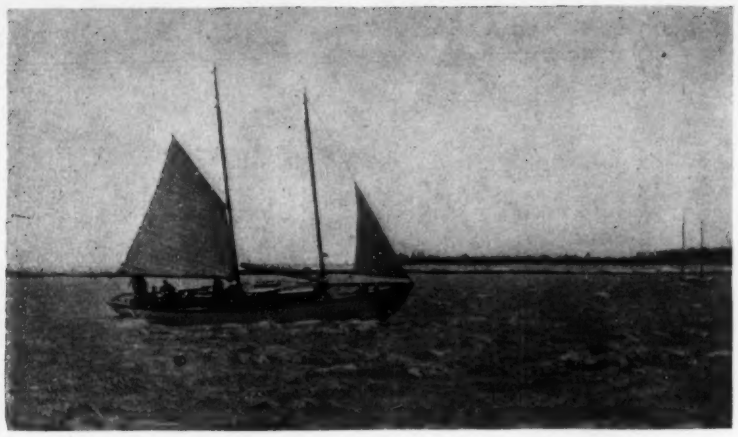
The special race given by the Class for Handicap boats wound up the season and brought out 20 starters. The weather lived up to its reputation and handed out a strong easterly and a jump of sea that bothered some of the boats considerably, while a number of the smaller classes carried reefs. Every division was well filled, the second division being divided into two sections, and every boat finished with the exception of Senora, which lost her bowsprit when the Carolina tried to cross her on the port tack and couldn't quite clear.

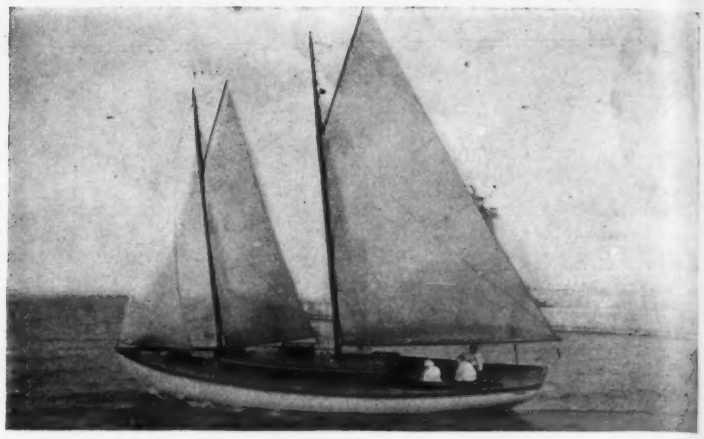
In addition to the races shown in the following table, which comprise all those making up the regular season, Handicap boats captured everyone of the three long-distance races on the Sound. The first of these, the Block Island Race was won by Pontiac, while W. H. Farrell's Senora took second prize.



A New One-Design Class for the Bayside Yacht Club

AS handsome and useful a little boat as we have seen for some time is the proposed one-design craft for the Bayside Yacht Club, a club which promoted that very successful class, the Bayside Birds, and later started the Butterfly class to get the younger members interested. The boats proposed for the new class are of knockabout rig, 18 feet long over all, 6 feet beam and 2 feet 6 inches extreme draft. They are of the keel type, with 300 pounds of lead outside; were designed by George L. Chaisson, of Swampscott, Mass., and will probably be built by him. They are decked over with a good-sized cockpit, have pleasing sheer and are extremely able-looking. The freeboard at the bow is 2 feet and aft 17 inches. They will be copper-fastened and all fittings of bronze, with a wash rail of mahogany, the deck being of pine, canvas covered. The cockpit will not be ceiled, but there will be air tanks fore and aft of sufficient capacity to keep the boats afloat should they fill. The sail area is 175 square feet, 140 of which is in the mainsail. It is understood that the cost of these boats complete will be about $240, and they are a good deal of a boat for that price. Already four boats have been pledged, and the club expects that a number more will be taken up.



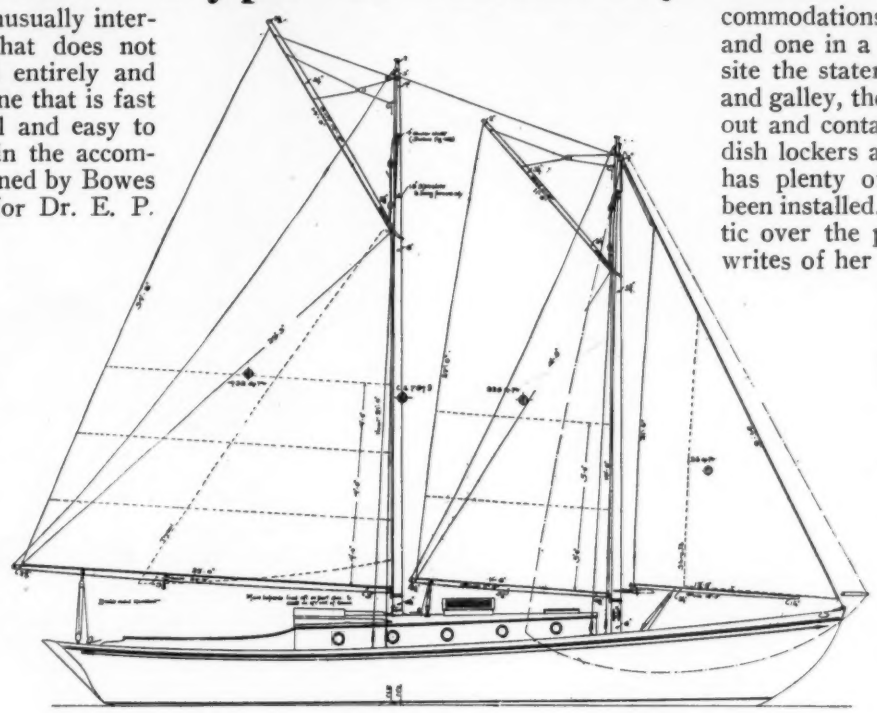


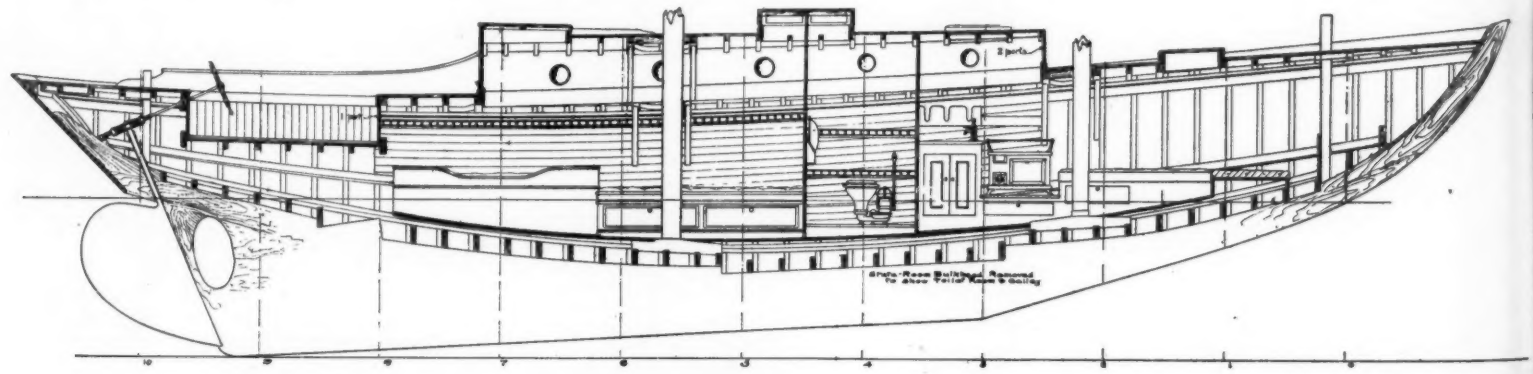
A New Type of Auxiliary Schooner

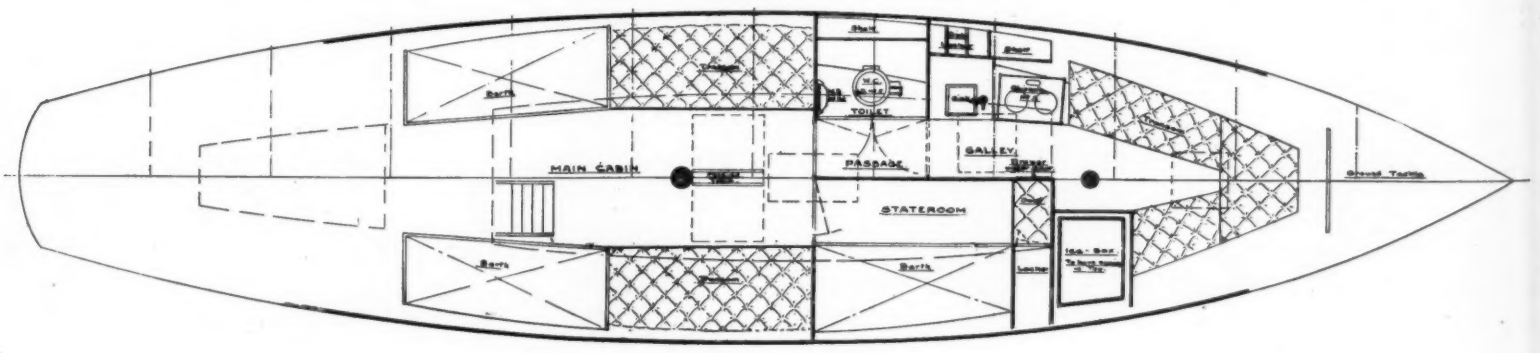
A TYPE of boat that is unusually interesting to the man that does not want to give up sail entirely and yet desires an able boat and one that is fast and easily handled under sail and easy to drive under power is shown in the accompanying plans. She was designed by Bowes & Mower, of Philadelphia, for Dr. E. P. Hussey, of Buffalo, N. Y., a member of the Buffalo Yacht Club. The boat is of a type of which a number have been built recently. They are short-ended with sharp forward sections, a long keel and moderate draft and sail area. This yacht, the Seriola, is 38 feet long on the waterline, 48 feet overall, 10 feet 6 inches beam, and 5 feet designed draft, while she carries 784 square feet in her three working sails.

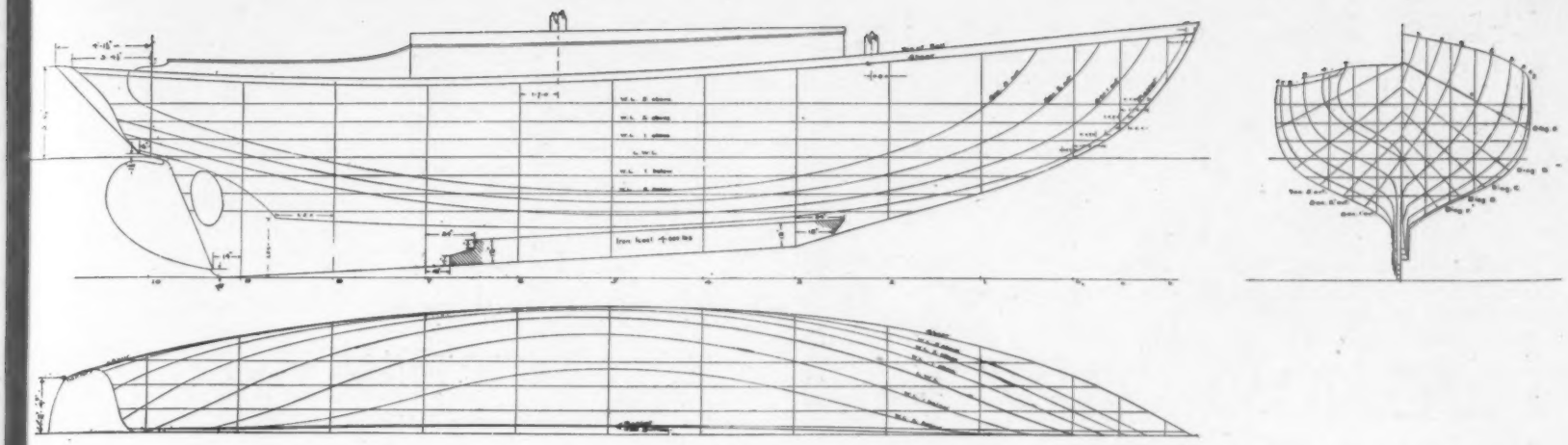
The cabin is unusually roomy and has sleeping accommodations for five, four in the saloon and one in a good-sized stateroom. Opposite the stateroom is a well-arranged toilet and galley, the latter being carefully thought out and containing a Shipmate range, sink, dish lockers and the like; while the foc's'le has plenty of room. No power has yet been installed. Her owner is very enthusiastic over the performance of the boat, and writes of her to the designers as follows:

"I thought it would interest you to know of the satisfaction Seriola has been giving me, as you expressed surprise that she should, the first season sailed, make a run of 12 statute miles in one hour and one minute, towing a dinghy with a 40-mile wind on the quarter. It did not surprise me so much, for I have had many an experience of the speed at which the "whale boat" model can be driven under favorable conditions.

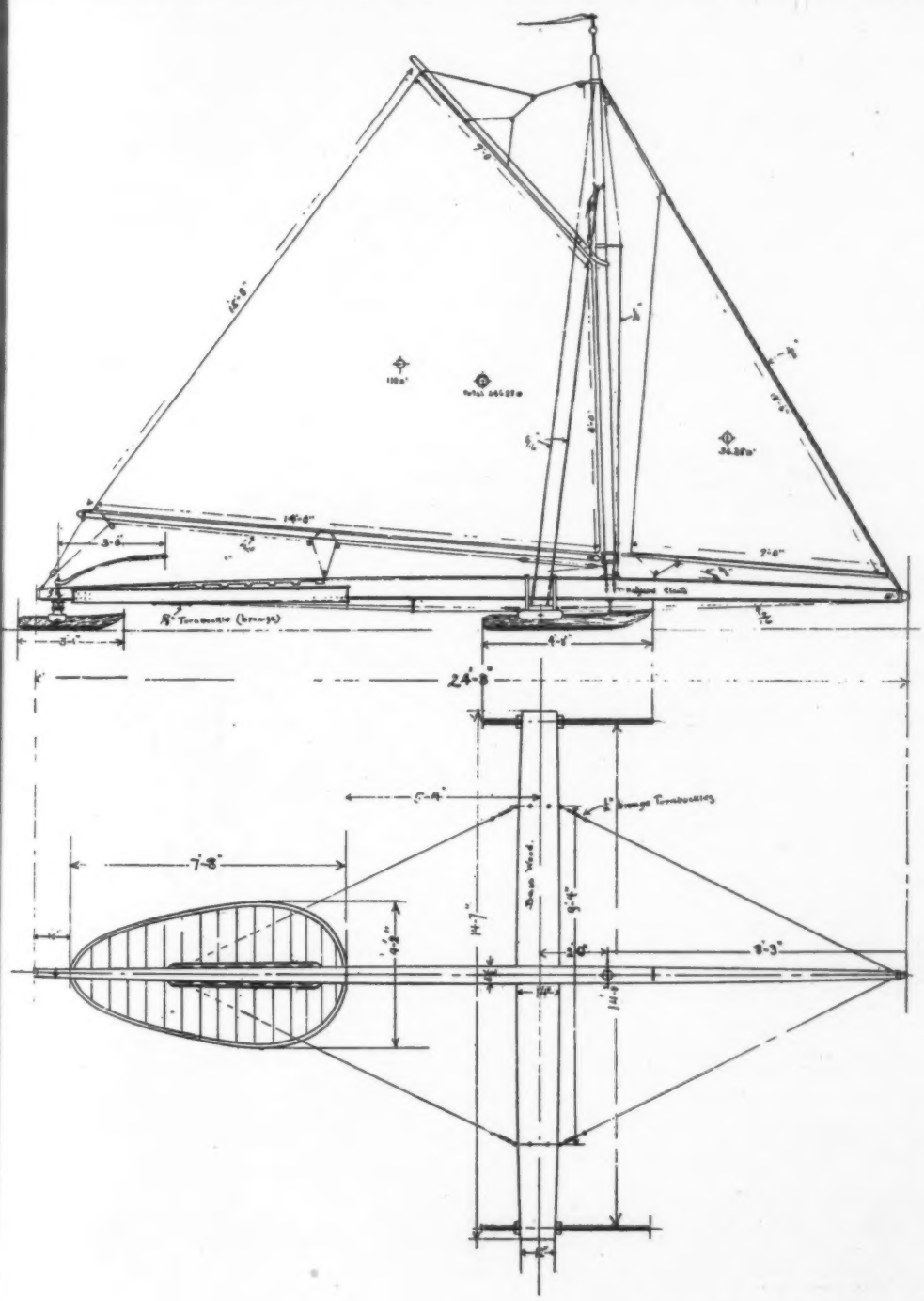








"Last year I dropped the keel 11 inches, which makes her (in this fresh water) draw a little over 6 feet, and has given me more lateral resistance, and stiffened her some and has not interfered with satisfactory working. I have never had her miss stays. This summer in a strong breeze and smooth water, behind the breakwater, I tacked repeatedly with foresail and jib, and once with foresail alone. I nearly always pick up my mooring with mainsail alone. Once this summer I started with the wind blowing 49 miles an hour, under close reefed mainsail and foresail and full jib, beat 12 miles to windward to Point Albino and did not take over enough water to windward to wet a blanket through; but the wind steadily moderated until when 9 miles up I had full sail set. On July 5th we had a 60-mile gale. I took her out with close reefed mainsail and storm jib and sailed up and down behind the breakwater. I am sure she could have gone to windward in the open lake that day."



An Ice Boat with 146 Square Feet of Sail

THE accompanying plans show a 25-foot ice boat recently built from designs by J. Murray Watts, of Philadelphia, for L. E. Brackett, Jr., of Rochester, Ind. This type of boat has proved very successful, the construction following out the most scientific developments in ice boat design. The backbone is built up of a hollow shell of bass wood, suitably reinforced by inner straps.

The sail area is 146 square feet, 110 of which is in the mainsail, and, though the boat is considerably smaller than those of the 250 square foot class, which is about the smallest racing class recognized, she is very fast, and a speed of from 32 to 36 miles per hour has frequently been obtained by boats of this type, depending, of course, on the wind and point of sailing. The backbone is 24 feet 3 inches long, the runner plank 14 feet 7 inches in length and 14 inches wide, and the runners are 4 feet 8 inches long. The cockpit is of good size, as is seen from the plan, and will hold two people comfortably.

Keep Your Spark Plugs Clean

The points of all sparks plugs, and all contact points, are usually made of platinum alloy, or some other heat-resisting conductor, and those points must be kept clean and free from carbon, as the formation of the latter tends to cause short circuits across the spark plug gap and dampens the spark. They may be cleaned with a dose of kerosene from time to time. It is well also to look them over frequently and wipe off any soot or dirt on the porcelain.

L. I. Sound Championships

The results of the season's racing in the various classes recognized by the Yacht Racing Association of Long Island Sound are shown in the accompanying table. In Class "P," which was seen on the Sound for the first time in two years, R. B. Budd's Amoret won. In the New York 30 footers, Commodore J. A. Mahlsted's Okee again won, while in Class "R," Commodore W. H. Child's Joyetta was high boat. A. H. Morris's Wild Thyme headed the Larchmont Interclub, while George Cory's Little Dipper again won in the Star Class. J. Bister's Teal won in the Orienta one-design class; Catseye in the Glencove Jewels, while G. G. Fry's Tautog again cleaned up the dories.

TEAL, WINNER OF THE LONG ISLAND SOUND CHAMPIONSHIP IN THE ORIENTA ONE-DESIGN CLASS. OWNED BY J. BISTER

	Starts.	1st	2nd	3rd	Per Cent.	
CLASS P.						
Amoret	12	6	6	0	76.9	Wins.
Anita	12	5	5	2	65.3	
Josephine	2	2	0	0	D.N.Q.	
N. Y. Y. C. 30 FOOTERS.						
Okee	16	4	6	1	72.50	Wins.
Alerion II	16	3	2	2	63.1	
Lena	13	1	3	5	61.8	
Hope	16	4	2	3	62.2	
Alera	16	2	4	2	57.6	
Silhouette	10	2	0	1	49.2	
Juanita	7	2	0	1	D.N.Q.	
Banzai	9	0	0	1	D.N.Q.	
LARCHMONT INTER CLUB.						
Wild Thyme	12	5	2	5	85.5	Wins.
Whiff	15	4	4	0	62.9	
Barbara	17	3	1	8	....	
Dagmar	14	2	4	1	....	
Yuron	15	1	0	0	....	
Hawbugh II	12	1	2	1	....	
Skid	9	3	4	1	D.N.Q.	
Lewanna	9	0	0	1	D.N.Q.	
Le Cygne	7	0	0	1	D.N.Q.	
CLASS R.						
Joyetta	16	11	5	0	84.8	
Margaret	14	4	8	1	67.9	
Bud	3	2	0	1	D.N.Q.	
Ogeemah	3	0	1	0	D.N.Q.	
MANHASSET BAY TWENTIES.						
Mahaska	4	0	1	1	D.N.Q.	
Mlle. Boss	3	2	0	1	D.N.Q.	
Kit	3	1	2	0	D.N.Q.	
GLEN COVE JEWEL.						
Catseye	14	6	6	2	78.4	
Brilliant	10	4	2	2	64.7	
Emerald	10	2	3	3	54.5	
Opal	7	4	1	0	D.N.Q.	
Turquois	2	0	1	0	D.N.Q.	
Moonstone	2	0	0	1	D.N.Q.	
STAR.						
Little Dipper	12	5	3	0	84.5	Wins.
Neptune	11	5	1	1	....	
Zete	16	3	2	1	....	
Snapper	11	0	2	2	....	
Snake	13	0	2	0	....	
Vega	14	0	1	2	....	
Twinkle	10	2	1	1	....	
Star Faraway	10	0	0	2	....	
None of the others qualified.						
ORIENTA, ONE-DESIGN.						
Teal	11	6	5	0	83.7	Wins.
Theane	11	5	4	2	75.6	
Alcyone	8	0	1	3	D.N.Q.	
Reverie	7	0	1	2	D.N.Q.	
AMERICAN DORIES.						
Tautog	11	6	3	1	77.5	Wins.
Yan	12	6	3	2	76.0	
Rocky	10	1	2	0	....	
Faraway	4	0	1	1	D.N.Q.	
Alice	6	0	3	2	D.N.Q.	
Madeline	2	0	0	1	D.N.Q.	
Mae	7	1	1	3	D.N.Q.	

Answers to Racing Situations

May I submit an answer to your racing problem of November, where two boats foul as they are about to round a mark when B has just come about to the starboard tack to avoid fouling A?

I think that rule No. XII, 4 of the Yacht Racing Association of Long Island Sound applies in this case. The rule reads: When two yachts, both close hauled on the same tack, are converging by reason of the leeward yacht holding a better wind and neither can claim the rights of an overtaken yacht, then the yacht to the windward must keep clear. Therefore B is awarded the protest.

JOSEPH BISTER

Before B came about A had the right of way. As soon as B came about and filled away on her course, then B was to leeward of A and had the right to luff.

A, therefore, should have given way. Not doing so she became responsible for the foul. A. P. CHURCH

WORKING THROUGH THE DRAW

Under conditions stated in this problem in the November number, with a head wind and a head tide, I would attempt to get through this bridge by getting as good a start as possible, footing fast to the opening of the bridge and keeping as close as possible to the end of the bridge on the near side of the opening. As soon as I was in the channel and clear of the bridge, I would luff, in the hopes that the boat would carry her way through the opening, so that I could fall off again on the same tack on the other side. A. P. CHURCH

THE DRAWBRIDGE PROBLEM

Unless the wind were of sufficient strengt to give the boat a speed of six knots or so I do not believe she could be worked through draw under conditions given. If of sufficient strength, I would come up close hauled, but with a good rap full, shaving the piles on one side and shoot her right up into the wind close along the bulkhead of the bridge on the near side, before she felt the weight of the tide—make a pilot's luff. I believe this would carry her past the 18-foot wide bridge and she could be filled away again before she lost her headway, so as to clear piles to windward of bridge on the other side. It would be quick work, however.

If B had fully filled away on the starboard tack before the foul and established her rights on that tack, then A was to blame, being either the overtaking boat or the windward boat, according to his position just previous. H. B. B.

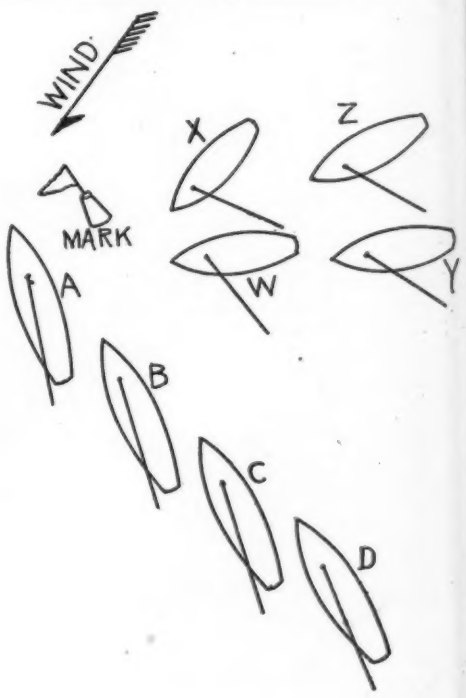
Another Racing Situation

A question of right of way. The mark to be let to starboard. Boats A, B, C, D had altered their helm to round mark and are now close hauled. Boats W, X, Y, Z have carried inside through luffing and are now running down wind and force the boats A, B, C, D to give room at the mark or be run down. The two groups of boats belong to different classes starting at the same time.

Question No. 1.—In case of foul between B and W, who would have the right of way? If protested, what bearing would the decision have on the outcome of the race; in other words, would it benefit either boat to protest, or would it simply stir up feeling?

Suppose the same situation exists and foul occurs at start and mark is one end of starting line?

Have answers in by December 10.



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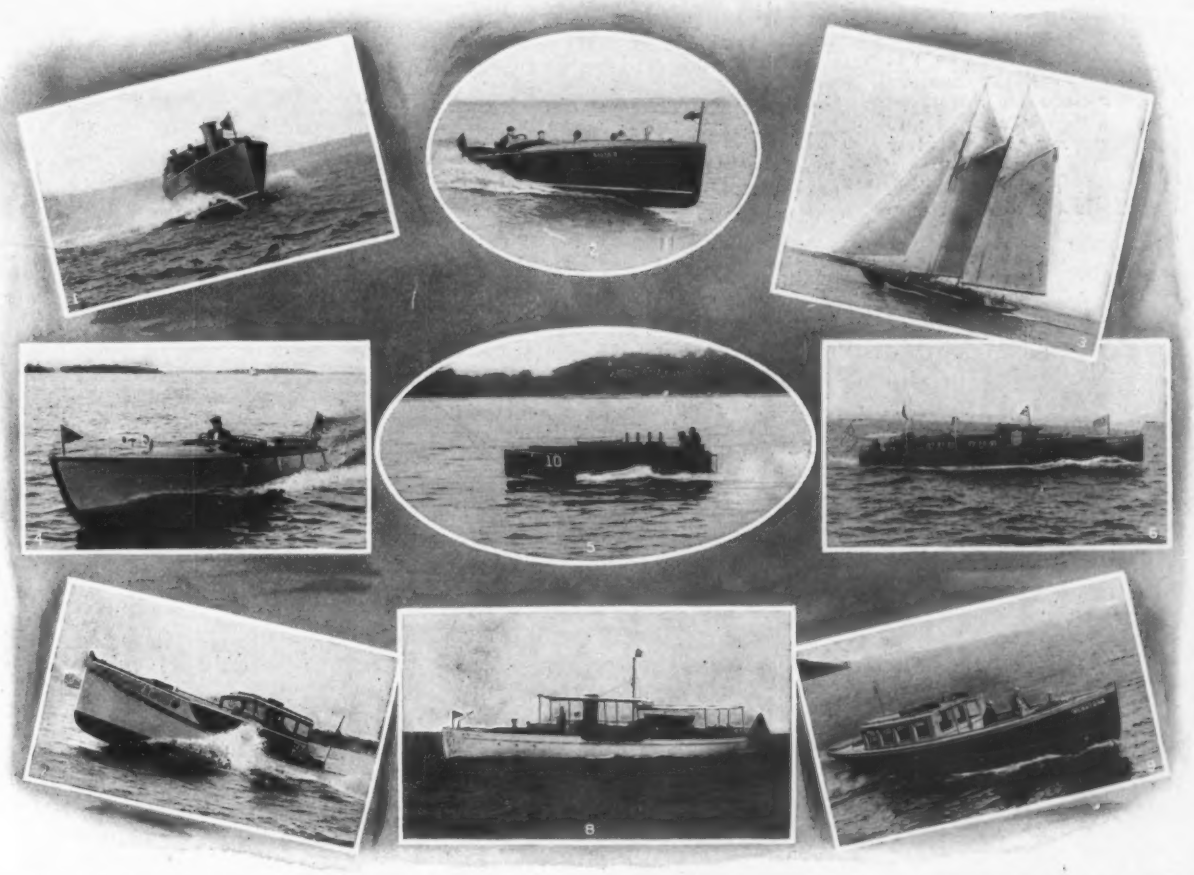

1. "HOUP LA"—40′ x 8′6″ Racing Cruiser. 150 H. P. Sterling. Designed by Swasey, Raymond & Page. Built by Britt Bros. Owner, Mr. Harold Wesson, Springfield, Mass. Speed, 28 M. P. H.

2. "KIOTA III"—35′ x 6′3″ V-bottom. 225–250 H. P. Sterling racing engine. Speed, 42.20 M. P. H. Designed by Crouch Brothers, New York. Built by Canadian Beaver Co., Toronto. Owner, Mr. R. S. Waldron, Kingston, Ont.

3. "WINDWARD"—93′ x 19′ 6″ x 8′ 9″ Auxiliary Schooner. 45 H. P. Sterling Heavy Duty Engine. Designed by H. T. Gielow. Built by Robert Jacob, City Island, N. Y. Owner, Mr. Henry D. Whiton, New York.

4. "NEUTRAL"—29′ x 6′ Runabout. Model E 17–25 H. P. Sterling engine. Speed, 17 M. P. H. Designed and built by Hutchinson Brothers, Alexandria Bay, N. Y. Owner, Mr. John Bailey.

5. "TECH, JR."—20′ Monoplane. Speed, 54.46 M. P. H. Model R 225–250 Sterling racing engine. Designed and built by Adolp Apel, Atlantic City, N. J. Owner, Col. T. Coleman DuPont.

6. "GOEDUCK"—55′ x 9′ Express Cruiser. Designed by L. E. Geary; built by Johnson Bros. & Blanchard, Seattle, Wash. 100 H. P. Sterling engine. Speed, 18 M. P. H. Owner, Mr. W. G. Norris, Seattle.

7. "MAUDIE II"—26′ x 6′ 6″ x 1′ 9″ Cruiser. Model B 20–35 H. P. Sterling engine. Speed, 15 M. P. H. Designed and built by Bailey & Lowe, Auckland, New Zealand. Owner, Mr. Harry Kasper.

8. "MONEEKA"—64′ x 11′ 6″ x 4′6″ Bridge Deck Cruiser. Model D 50 H. P. de luxe Sterling engine. Designed by Arthur Binney and built by George Lawley & Son, Corp. Owner, Mr. F. H. Wells. Burlington, Vt. Speed, 11 M. P. H.

9. "WEBSTONE"—40′ 9″ x 10′ x 3′ Ice Breaking Tug. 45 H. P. heavy duty Sterling. Built by St. Louis Yacht & Boat Co. Owner, Mississippi River Power Co., Keokuk, Iowa.

From January, 1914, to August 23rd, 1915, there were just 266 new yachts built and registered in LLOYD'S REGISTER OF AMERICAN YACHTS. During this time there were also 32 high-powered racing boats and runabouts not registered but which participated in important racing events. Installed in these 298 boats were 308 engines, made by 58 representative builders of this country. Of these 308 engines, 91 or 29.5% were STERLINGS. The second on the list contributed but 25 or 8.1%. There were more STERLINGS than all the engines made by the second, third, fourth, and fifth makes put together. These *facts* tell a powerful story. Do not experiment.

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New Head for the American Power Boat Association

While a number of important measures tending to strengthen the organization were threshed out and adopted at a meeting of the American Power Boat Association, held in New York on October 27th, not the least important was the selection of a new head for this largest of all motor-boat associations. Commodore H. T. Koerner, who has been president of the association for the last six years, and who has built it up to its present strong position by his untiring zeal in the cause, felt that it was time that he was relieved of the responsibility, and Mr. A. L. Judson, the late secretary of the association, was elected in his stead. In handing over the reins to Mr. Judson, a better man could not have been selected for the position. He has not only been secretary of the association for the past year, and is hence familiar with the needs of the organization, but has been a hard and consistent worker for it during the last few years. He is also an active racing man, being part owner of the unfortunate Hawkeye, which had such hard luck at the last two Gold Cup races.

The association broadened its scope materially by adopting a number of amendments, principally with the idea of benefiting the motor-boat owner at large, rather than merely looking after the interests of the racing end of the sport. Among these may be mentioned, first, the appointing of a special committee to improve the charting, lighting and buoying by the government of waterways used by motor boats, all local committees working through a central committee which has the power to recommend any changes deemed necessary; second, the issuing of instructions to clubs as to the various methods of holding motor-boat races other than those based on rating; third, the appointment of a legislative committee to watch Federal and State laws unfavorable to motor-boat owners; fourth, the recommendation that each local section has at least one cruise each year to bring the various clubs of such sections into closer touch; fifth, the printing in the Year Book of a general list of measurers, timers and surveyors whose services along their respective lines will be available for the local sections at points where qualified men are hard to get and whose qualifications are satisfactory to the association. This should do much to standardize courses, get boats measured properly in out-of-the-way places, and prevent all questions of extravagant claims for speed, power, etc.; sixth, the appointment of a committee to effect standardization of horsepower, ratings, boats and equipment, and, lastly, the recommendation (to be voted on at a special meeting) of the appointment of a technical advisory committee, consisting of three members, the chairman of which will be the timer of the association, the other a designer, and a third member.

Why Not Have a National Association Man?

There was quite a fight as to whether the third member should not be a technical man connected with the National Association of Engine and Boat Manufacturers. There was a good deal of opposition to the appointment of anyone not interested in the sport for the sake of sport alone, and the matter was put up to the Council by leaving the appointing of the third member of this committee up to it; in other words, if the Council wanted to appoint a member of this trade association they should have full power to do so. This seems like dodging the issue, and we not only believe that this committee will be strengthened by a member of the National Association with wide technical and manufacturing experience, but that there is no reason why one should not have been chosen. This committee, as well as the racing committee, are to be given votes in the Council.

No material changes were made in the racing rules, except as regards the definition of express cruisers, whereby all boats whose rating is in excess of nine times the square root of the waterline hereafter will be express cruisers. This will, in effect, work out that all boats with a speed of above, approximately, 19 miles an hour will race in the express cruiser class and not against the slower boats.

The other officers of the association elected were Thos. B. Taylor, secretary; George C. Krusen, treasurer; Frederick K. Lord, measurer, and Reuben B. Clark, timer.

The association has also announced the dates for the 1916 Gold Cup Races as Sept. 1, 4 and 5, at Detroit.

The Harlem Yacht Club's New Home

At this time of the year one of the most desolate places imaginable is usually a yacht club yard. This is not the case with the Harlem Yacht Club, however; in fact, it is one of the busiest places along the Sound at present, for the American Realty Company have the new club-house nearly completed.

On the 29th of May the club's home for the past fourteen years was totally destroyed by fire. The destruction of the house itself entailed a great financial loss and inconvenience to our 150 members and their many friends. In addition to this, many members lost their yachting trophies, which were the accumulation of years. The club also lost the Brooklyn Yacht Club's Open Challenge Cup, which was put up to encourage ocean racing for small boats, of which they were custodians, having won it in 1913 with J. A. Crowley's Ediana.

With all of this loss staring them in the face, the members immediately set to work, and on August 1st had completed a two-story locker house 112 feet long by 20 feet wide, containing 200 lockers, shower baths and sail loft.

The new club house, which will shortly be completed, is a handsome building 68 feet front by 52 feet deep, and will be three stories high. The exterior finish of the house will be stucco with red stained shingle roof. The first floor will contain the kitchen, pantry, heating room and grill room, with large open fireplace. The second floor will contain the main clubroom, with large open fireplace; large ladies' dining room, also reception room. A spacious veranda runs the entire length of the house on the front facing the bay. When completed it will be one of the handsomest and the most up-to-date club home on Long Island Sound.

The Building Committee, composed of five members of the club—Andrew B. Sunter, John A. Crowley, Geo. A. Gibson, Wm. J. Fowler and Arthur H. Hall—have the entire proposition under their supervision.

At the last meeting of the club the Race Committee was instructed to immediately place an order with the manufacturers of the Brooklyn Challenge Cup for a new one identical with the old one, with the various winners' names engraved on it, and the other yachting organizations have been notified that the Harlem Yacht Club is open for challenges for this trophy. It is sincerely hoped that the cup can be raced for next year.

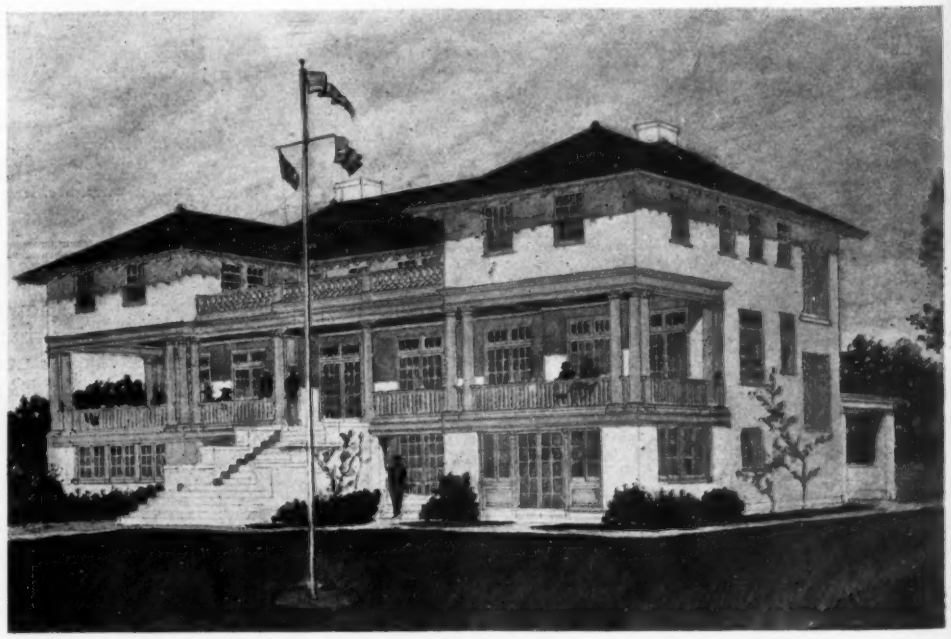
The club quarters are draped in mourning owing to the resignation of one of the Old Guard—E. J. McCready—who has decided that a seagoing life on Long Island Sound is too strenuous for his constitution, and has "beat it" for a farm up State, where he will put in his declining years in the midst of a simple pastoral life. Some change from the old days, eh, Ed? What will all the centers of gay life on City Island do without you?

The Motor Boat Show

The 1916 New York National Motor-Boat Show will be held in Grand Central Palace, opening Saturday, January 29, and closing Saturday, February 5, and gives promise, judging from the number of exhibitors who have taken space, to be better than ever before in its new home.

The motor-boat shows have for years been housed in Madison Square Garden, but the management of Grand Central Palace has agreed to make certain alterations in the building which would permit of the exhibition on the main floor of motor boats even larger than any that have ever been shown in the Garden. With these increased accommodations, cruising boats 60 feet long will be numbered among the exhibits at the coming Twelfth Annual National Motor-Boat Show, while smaller cruisers, runabouts, express launches, racing hydroplanes, and even dinghys may readily be installed in their exhibition berths.

The exhibition committee announces that no National Motor-Boat Show will be held in Chicago in 1916.



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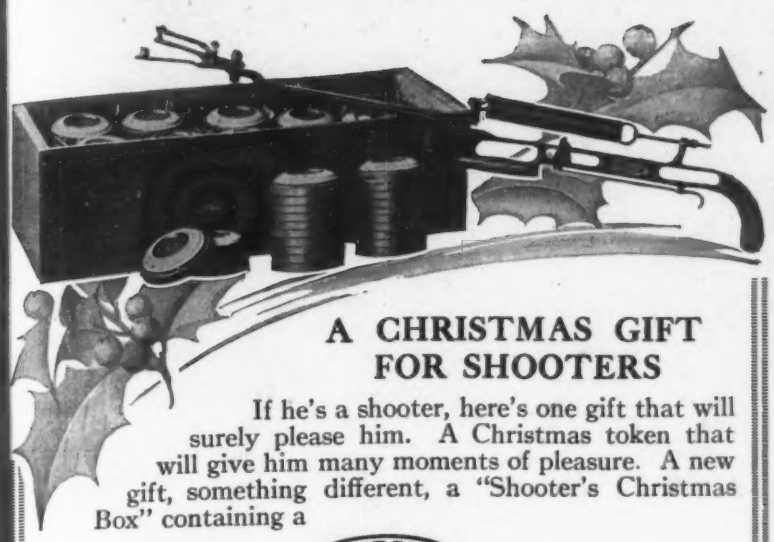

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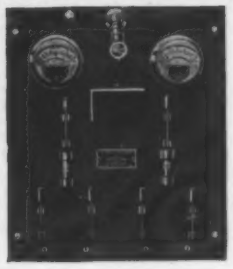

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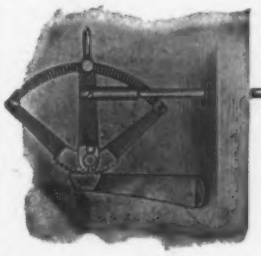

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New Rochelle Yacht Club News

The Trap Shooters Busy

Now that the yachting season is over the trap-shooters of the club are having their innings and the season opened on November 14, when a dozen shooters faced the traps. The programme each week is to start promptly at eleven o'clock Sunday morning, the finish of the regular programme being at one o'clock, when the shooters can have dinner at the club house, while in the afternoon they hold informal shoots and those that want to go down to the New York Athletic Club to enter the contest there can do so. The programme each Sunday includes the following events:

10 Birds Scratch, Optional Sweepstakes.
15 Birds Scratch, Optional Sweepstakes.
25 Birds Handicap, Optional Sweepstakes.
25 Birds Handicap, Monthly Cup.
25 Birds Handicap, Accumulation Cup.

while on holidays, in addition, a 50 Birds Handicap for the "Take Home" trophy will be added. An entry fee of 50 cents will be charged for each shoot for the Accumulation Cup and 25 cents for each sweepstake and holiday trophy. In addition to these prizes there will be regular monthly cups and a trophy for the highest scratch score during the season made in the regular programme of one hundred birds, while a season trophy is offered for the longest straight run made in the regular programme of any one day's shooting. There will also be consolation prizes and other special prizes, so that everyone, even if he is a novice, has a chance at something.

Handicaps will be allotted by the shooting committees and are subject to change at any time. Targets are only 1½ cents each and shells 70 cents per box, so that the total cost is only about 3½ cents per shot.

Guests of members are welcome and members of the New York Athletic Club, Larchmont Yacht Club, White Plains Gun Club, Marine and Field Club, Manhasset Bay Yacht Club, Knollwood Country Club, Westchester Country Club, Stamford Yacht Club, Port Washington Yacht Club, Bayside Yacht Club and Greenwich Country Club, are invited to shoot with us at any time.

In addition, to encourage shooters who are not particularly interested in yachting the New Rochelle Yacht Club offers gun privileges to those that are fond of shooting by an associate membership, the fee for which is $10. This carries all the privileges of Club from November 1 until the close of the season in April, and in the spring any associate member by paying the balance of dues and initiation fee can become a regular member of the club.

The quarterly meeting, held November 13 at the club house, brought out a fair attendance, and two associate members were elected, Floyd R. Smith and Francis M. Wilson.

The treasurer's report for the year showed t club to be in a very satisfactory condition finan ally, with prospects of there being a substan balance at the end of the year. The house acco also showed a profit for the year.

Those members that kept their boats in o Election Day and made the last cruise to Lloyd Harbor had rather a windy time of it. "Mar Kattenhorn's Surprise and "Charley" Marsland Guardia raced in a 45-mile nor'wester, the bo going over in the fast time of 228 and 2 minutes, the Guardia winning; and, on the t back on Election Day, in another strong we erly, a hard squall was encountered which buri the two boats when it first hit them. They b came through, however, without any more both than a cold wetting for the crews.

It's certainly early yet to talk about the ann meeting and dinner that will be held the fi Saturday in February, probably at the usual pla the Manhattan Hotel, New York. Anyhow, r serve the date.

Members should not get out of the habit dropping down to the harbor and going over Harrison Island Sundays and holidays. They w always find a bunch of their friends there sho ing, or watching the shooting. Better take a ha at the shooting yourself and get some of yo friends who like it to go down and try it also.

Of Interest to the Skipper

A Fine Marine Painting

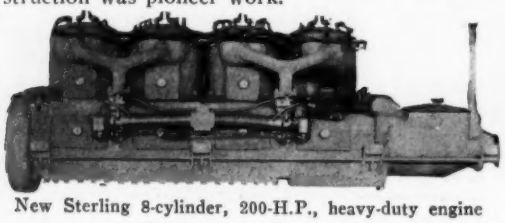
For the man that loves a square-rigger—and that includes every man that has a drop of salt in his veins—the painting recently made by Mr. Frederick L. Owen, of Boston, Mass., of the four-masted bark Brilliant will be sure to quicken every sailor instinct in him. The vessel is shown under full sail in a fresh breeze passing a steamer in mid-ocean. Mr. Owen not only sees with the artist's eye, but has "been there" also, and the details of sails and rigging are technically correct, a combination which doesn't often happen.

The bark Brilliant is a four-masted German-built ship owned by the Standard Oil Company, for which American registry was acquired at the outbreak of the present war, and she was placed under the American flag. Mr. Owen offers to send the picture on approval to anyone that wants to see it. Better see it for yourself.

The New Sterling "Heavy Duty Speed" Engine

The second of the Sterling Model F motors, an all-enclosed motor of 200 horsepower at 1,500 revolutions per minute for express runabouts, cruisers and naval craft, has recently been placed on the market and is now being manufactured in hundred lots, largely for export. The new machine is an 8-cylinder model, with a bore and stroke of 5½ inches by 6¾ inches.

In this new engine the Sterling Company has produced the first engine built to deliver large horsepower at a high rate of speed and to stand up to it for long-continued periods. The motor is intended to provide adequate and reliable power plants for runabouts and cruisers of the express type and for naval despatch and patrol boats. It is a radical departure in many ways from the regular heavy-duty motor and also from the out-and-out speed engine. Its designing and construction was pioneer work.



New Sterling 8-cylinder, 200-H.P., heavy-duty engine

Besides this new 8-cylinder 5½ inches by 6¾ inches motor, which the company are now turning out in large quantities, a 6-cylinder Model F machine of the same bore and stroke will shortly make its appearance, and a little later on a 4-cylinder Model F will be brought out.

A Diving Hood for Underwater Work

C. D. Durkee & Company of 2 South street, New York, have recently become the agents for a marine appliance of great value to the yacht and boat owner. This is a diving hood, which permits anyone to work under water, staying there an indefinite time. The hood consists of what looks like a regular diving helmet, except that it is made of sheet brass and is much lighter. It fits over the head and rests on, but is not fastened to, the shoulders, lead weights on the back and front overcoming the buoyancy of the helmet when full of air and the buoyancy of the body. No weights are required for the feet. This can be put on over a bathing suit or ordin clothing and a man can descend into water a stay an indefinite period, being supplied with by a double action pump on the deck of the b Not being fastened on there is absolutely danger, for if the man on deck should stop pu ing, or the air supply fail, one merely has throw off the helmet and the buoyancy of his b will bring him to the surface. With the p supplied with the diving hood descents can made in water up to 50 feet in depth, though feet is all that is recommended by the invent and makers, the Miller-Dunn Company of Mia Fla., not on account of the apparatus, but account of the possible effect of the pressure water on a person's body beyond that depth. T pictures show the hood in actual operation, w the air escaping from the helmet.

With this it is possible not only to explore bottom of the harbor, but make repairs to rud propeller, and the like without hauling out.

The "Divinhood" for work under water. Any amateur can use it and it can readily be taken off under water in case of accident, as shown in the second photograph

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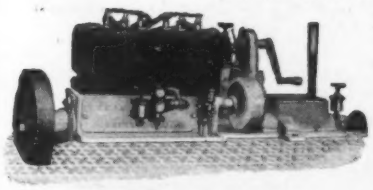

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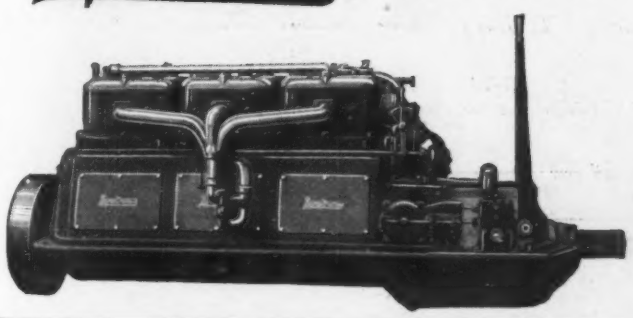

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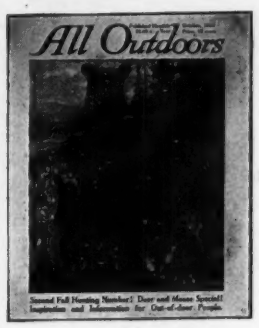

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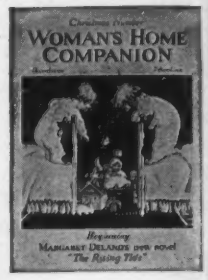

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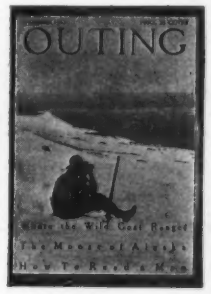

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37	Advertising & Selling	17	Boy's Magazine	27	Green Book Album	20	McClure's	60	Outlook	25	Rod & Gun	120	Town Topics
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55	Arts & Decoration	70	Country Life in America	50	House & Garden	20	Motor Print	60	Popular Magazine	50	St. Nicholas	25	Woman's Home Companion
80	Atlantic Monthly	60	Countryside Magazine	55	Independent	30	Munsey's Magazine	20	Power Boating	30	Smith's Magazine	12	Woman's Magazine
27	Blue Book	50	Current Opinion	100	Judge	23	Musician	20	Practical Engineer	50	Scribner's	40	World's Work
		23	Delineator	15	Ladies' World	70	North American Review	90	Puck	23	Short Stories	35	YACHTING
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		23	Field & Stream	60	Literary Digest					20	Technical World		
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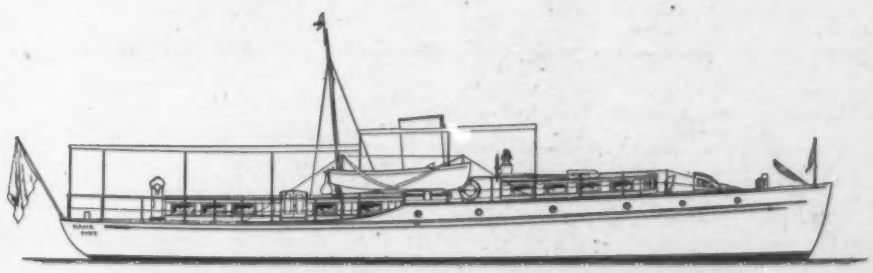

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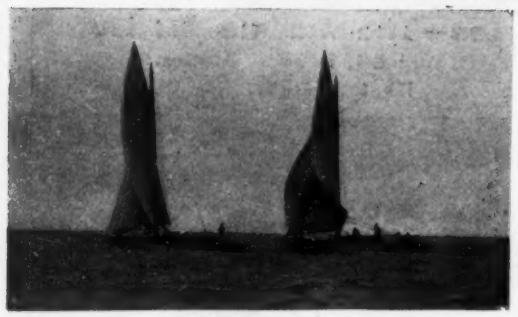

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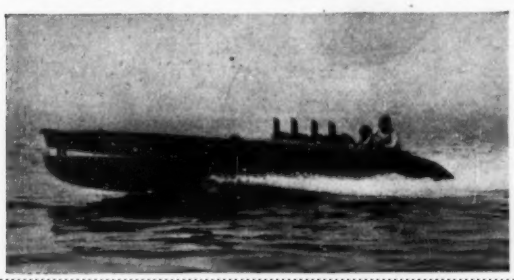

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The Design of Rating Yachts

(*Continued from page 247*)

plane must next be settled. Upon the contour and area of the lateral plane depend many sailing qualities of the yacht. For outside work a yacht with the area distributed well fore and aft will hold its course with the minimum of attention, and in "heaving-to" in a gale will prove the most efficient. Such extremes, however, as the old English cutters with their plumb stems and correspondingly deep forefoots, are not at all necessary, and it is very desirable that the lateral plane be cut to the smallest possible size which will permit the yachts to "hold on," as this minimizes the wetted surface, therefore resistance, and gives increased speed.

The form of the hull has considerable influence upon the effectiveness of the lateral plane. The more nearly a yacht sails in the erect position, the more nearly normal will be the keel to the direction of lateral motion. A form as shown by Fig. 7, *C*, is more effective than the form shown by Fig.

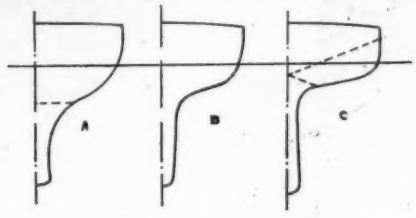


FIG. 7

7, *A*, due to the more pronounced flatness of the lateral surface.

The keel should be made flat along the bottom, and from the bow to the bottom of the keel should be an easy, smooth curve.

(To be concluded in the January issue)

Yacht Sales and Charters

Messrs. Cox & Stevens report that their brokerage office has been unusually busy, and that they see every indication of a great interest in yachting this winter and next season. The following sales and charters have recently been effected by this office:

The steam yacht Vanadis has been sold for Mr. C. K. G. Billings to Mr. Morton F. Plant. Vanadis is one of the most successful of the large seagoing steam yachts, having been built in Scotland in 1910. She is 277 feet long over all. Her machinery consists of a combination of turbines and riciprocating engines, and she has proved herself a fine sea boat.

The steam yacht Columbia has been sold for Mr. J. H. Ladew to a Canadian yachtsman, who is now using the vessel in Canadian waters. Columbia is 196 feet long over all, and has cruised around the world several times.

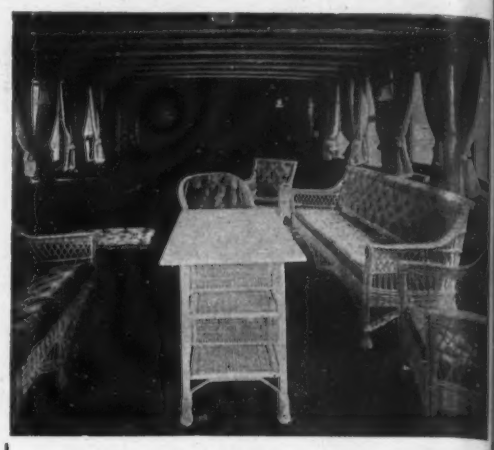
The famous steam yacht Kanawha, formerly owned by H. H. Rodgers, has been sold for Mr. Morton F. Plant to John Borden, of Chicago. She is 227 feet over all, and holds the reputation of being the fastest steam yacht of her type and size afloat.

The 145-foot steam yacht Isabella has been sold for Mr. George S. Runk to Mr. George H. Macy, who has renamed her Kasha.

The 200-foot seagoing steam yacht Surf has been chartered for a portion of the season for Mr. J. H. Hanan to Mr. H. S. Black.

The 176-foot steam yacht Margaret has been chartered for I. E. Emerson, of Baltimore, to a New York yachtsman, who has used her in and around New York.

The auxiliary steam yacht Speedwell, formerly the Intrepid, has been sold for Mr. T. N. Vail to



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Mr. Ogden McClurg, of Chicago. The Speedwell is 163 feet long over all and is one of the most successful auxiliary vessels in the fleet and has cruised all over the world.

The steam yacht Mousquetaire has been chartered for Mr. P. E. DeFere, of New York, to Mr. F. G. Thomson, of Philadelphia, and the steam yacht Florence II has been chartered for Mr. J. W. Alker to a New York yachtsman.

The 94-foot steam yacht Roamer, sold for John K. Robinson, Jr., to T. R. Hodges, Shell Fish Commissioner of the State of Florida, for service on the West Coast of Florida.

The same firm have also recently consummated the following sales and charters of auxiliary vessels, motor boats, houseboats and sail vessels:

Invader. Steel auxiliary schooner yacht sold for John Borden, of Chicago, to Henry D. Whiton, N. Y. Y. C.

Savarona. Steel auxiliary schooner yacht, sold for C. Howard Clark, Jr., N. Y. Y. C., to Col. C. L. F. Robinson

Windward. Steel auxiliary schooner yacht sold for Henry D. Whiton, Larchmont Y. C., to George Bullock, N. Y. Y. C.

Awa. 95-foot modern gasolene houseboat, chartered for A. DeWitt Cochrane to a Western yachtsman.

Lodona. 77-foot twin-screw gasolene houseboat, sold for James Godfrey Wilson, Larchmont Y. C., to Edwin A. Richard.

Ariel. 80-foot gasolene yacht, sold for Harrison S. Morris, of Philadelphia, to a New York yachtsman.

Winsome. Well-known racing sloop yacht, sold for Philip H. Johnson, of Philadelphia, to Peter W. Rouss. Her rig may be changed to that of a schooner.

Kosagaas III. 75-foot raised-deck cruiser, sold for Charles H. Baker, Columbia Y. C., to Charles Coreyell, of Bay City, Mich.

Beluga. 73-foot twin-screw gasolene cruiser, chartered for A. W. Stanley to a local yachtsman.

Ahmakola. One of the well-known Stamford Y. C. one-design schooners, sold for Howard C. Smith, N. Y. Y. C., to Edward T. Davis for service in Narragansett Bay.

Mustang. 65-foot bridge-deck cruiser, chartered for H. S. Beardsley, Columbia Y. C., to B. G. Work, of New York.

Cassandra. 55-foot high-speed power boat, sold for H. P. Whitney to August Heckscher.

Nepsi. N. Y. Y. C. 30-footer, sold for Johnston De Forrest to Gherardi Davis, of New York.

Grayling. 50-foot raised-deck cruiser, sold for Dr. E. J. Thomas, of New York, to Henry L. Blum, of Baltimore.

Messrs. Cox & Stevens, who report the above brokerage transactions, state that their designing department is also exceedingly busy, and that in all departments they see a great improvement in volume of business.

The Hollis Burgess Yacht Agency has sold the 40-foot motor boat Gertrude, owned by F. A. Newman, of Melrose, Mass., to Commodore H. A. Vose, of the Savin Hill Y. C.; the 35-foot waterline sloop Sakuntala, owned by E. G. Young, of Lynn, Mass., to Howland Twombly, of Newton, Mass.; the 34-foot waterline yawl Diamond, owned by W. H. Bartlett, of Boston, to P. J. Tierney, of Fall River; the 24-foot waterline Ebisu, for John Lee Merril, of Hamilton, Mass., to Alanson Bigelow, Jr., of Boston; the 30-foot motor boat Olga II, owned by Dr. F. W. Hovestadt, of Boston, to W. F. Halsall, of Winthrop, Mass.; the 25-foot waterline Lawley sloop Tarpon, owned by S. M. Fox, Jr., of Forrestdale, Pa., to John Lee Merrill, of Hamilton, Mass.; the 25-foot waterline racing sloop Sally VII, owned by Geo. B. Phelps, of New York, to Walter D. Lane, of Boston; the 50-foot waterline auxiliary sloop Louise, owned by Mrs. A. L. Poole, of Belmont, Mass., to Joshua Crane, of Westwood, Mass., and the 22-foot waterline auxiliary yawl Samoset, for H. P. Willett, of Waldoboro, Me., to W. R. Whiting, of Hingham, Mass.

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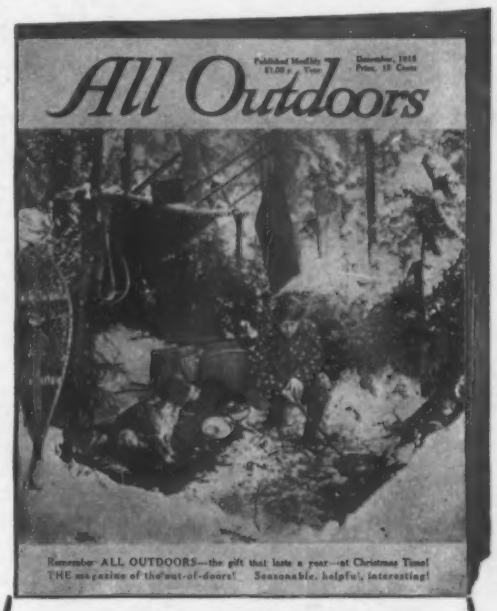
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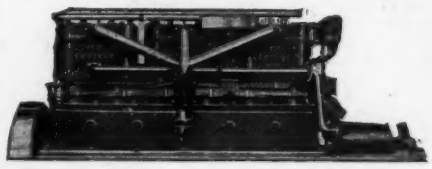

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